

# The Local Government Finance Series

**Volume II** 









# THE LOCAL OPTION SALES TAX IN TENNESSEE

A Staff Report of the Tennessee Advisory Commission on Intergovernmental Relations

**June 2002** 





Staff Information Reports, Staff Briefs, Staff Technical Reports and Staff Working Papers are issued to promote the mission and objectives of the Commission. These reports are intended to share information and research findings relevant to important public policy issues in an attempt to promote wider understanding.

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### **Foreword**

During 1999, 2000, and 2001 extensive debate occurred in Tennessee regarding state government finances. While the state had been reasonably successful in financing its activities during most of the 1990s (with the help of a state sales tax increase in 1992), growth in state revenues slowed, requiring skillful but temporary budgetary maneuvers to balance expenditures against revenues. Despite the sometimes intense debate over solutions to the state budgetary problem, and both legislative and gubernatorial attempts at tax reform, the fiscal problem remains unresolved.

While most of the debate centered on state government finances, local governments also face serious financial pressures. The fiscal problems experienced by local governments generally paralleled those of the state, dressed in slightly different clothing. While the state was experiencing structural problems associated with its sales and business tax collections, local governments were facing like problems with their local option sales tax and property tax.

The Tennessee Advisory Commission on Intergovernmental Relations (TACIR) addressed the challenges facing the state revenue system in early 1999 in its report titled **Financing Tennessee Government in the 21st Century**. A subsequent TACIR staff publication, **State-Shared Taxes in Tennessee**, included material on the possible consequences of state revenue problems on tax sharing with local governments.

Since the release of these reports, members of the Commission have expressed interest in additional information that focuses specifically on local government finance. Local governments in Tennessee, in contrast to state government, enjoy limited home rule taxing authority. While local governments are free to set local property tax rates, their ability to raise other tax rates are limited. Such inflexibility has left many counties and municipalities in an increasingly restrictive fiscal box, in which growing demands for services are in conflict with limited revenue sources. Recent attempts to broaden local home rule taxing authority have failed or have had modest revenue impact.

In response to the interest in more detailed local finance information, the TACIR research team began a local government finance project in April 2000. The purpose of that project was to produce a series of reports, each highlighting a separate component of local government finance. The following report on the local option sales tax represents one completed element of that project. A volume discussing the local property tax preceded this report. Additional reports for this series are planned on other local option taxes, intergovernmental revenue, educational finance, and local government debt.

# The Local Option Sales Tax In Tennessee

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# **Key Points**

- The local option sales tax is second only to the property tax as a source of local government tax revenue.
- The local option sales tax currently generates about half as much as the local property tax (\$1.45 billion versus approximately \$3 billion for the property tax in 2000).
- Local governments in only six other states are more dependent on the sales tax as a source of local government tax revenue.
- The maximum local option sales tax is currently 2.75%. As of March 2002, 30 of the state's 95 counties imposed the maximum rate; 14 others imposed a rate of 2.5%.
- The distribution of the local option sales tax base among Tennessee counties is extremely uneven. County per capita amounts differ by as much as a factor of 13 to 1.
- As a result of the combination of a fixed maximum local option sales tax rate and relatively low per capita taxable sales in many counties, the local option sales tax no longer provides a viable alternative to higher local property tax rates.
- The local option sales tax is subject to the same long run problems facing the state sales tax: lower growth in collections resulting from a combination of changing consumer spending patterns that favor services over goods, and increased usage of remote sales by both households and business that escape sales tax taxation.

## **Key Terms**

The following are some key terms that will be used, and in some cases further explained, in this report.

Single article limitation or Cap. A unique feature of the Tennessee local option sales tax that limits or caps the tax liability on the sale of a single item. The current cap (in most locations) equals \$1,600 times the local tax rate.

**Elasticity**. A characteristic of a tax designed to measure its responsiveness over time to growth in the economy. Usually measured in relation to growth in personal income.

Stability/volatility. A characteristic of a tax that relates to its behavior over the business cycle.

Remote sales. Refers to purchases by Tennessee households and businesses from sellers with no nexus or physical presence in the state. Most remote sellers do not collect sales tax on their sales into Tennessee. Remote sales include catalog sales, e-commerce sales, and purchases made while traveling outside the state.

# The Local Option Sales Tax In Tennessee

A Staff Report of the Tennessee Advisory Commission on Intergovernmental Relations

# **Executive Summary**

#### History

• The local option sales tax was authorized by the Tennessee General Assembly in 1963 and became immediately popular as a source of revenue for local governments.

By 1969, the tax was authorized in 78 counties. In 2002 all 95 counties have a local option sales tax at rates ranging from 1.5 percent to 2.75 percent.

#### Elasticity

• The statewide local option sales tax base is more inelastic than the state sales tax base—meaning that revenue from the local option sales tax grows slower than personal income and slower than the state sales tax.

The lower elasticity for the local sales tax likely stems from the single article limitation provisions in the local option sales tax law. In addition to the inelasticity of the statewide local option sales tax base, county level local option sales taxes are inelastic in 83 counties, including the four largest urban counties (Davidson, Hamilton, Knox, and Shelby).

#### Stability/Volatility

• The local option sales tax is less stable/more volatile than personal income in a majority of counties (85).

During business cycles, the local option sales tax is more volatile than personal income. This volatility can place a local government budget under great short-run stress unless it maintains adequate reserve funds and integrates more stable revenue sources into its local tax base. Unfortunately, a local tax base dependent on only stable taxes may grow more slowly than personal income and expenditure needs over time.

#### **Equity**

- Horizontal equity (an equal tax burden for households and businesses with similar incomes) for the local option sales tax is unlikely for several reasons:
  - o different consumption patterns between taxable and nontaxable goods and services,
  - o affected by proximity to other states with lower sales and excise tax rates, and
  - varying usage rates of purchases from remote sellers (by mail, phone, and the Internet) who do not collect sales taxes.
- Vertical equity for the local option sales tax is unlikely as well because the tax is regressive on households.

This is not a deliberate result, but one that occurs from variability in household expenditure patterns. This variability includes differences in the relative:

- importance of tangible goods purchases (especially necessities) by income level,
- o importance of services by income level, and
- o saving rates.

#### **Disparities**

• The local option sales tax base and untaxed single article tax base, adjusted by population, vary substantially from county to county creating serious potential expenditure disparities between local governments.

The local option tax base varied from a low of \$2,006 per capita in Morgan County to a high of \$26,031 in Sevier County (based on FY 1999-2000 data). The untaxed single article base varied from a low of \$22 per capita in Van Buren County to a high of \$2,844 per capita in Williamson County. Because of such tax base disparities, expenditure disparities remain even after adjusting for the equalizing effects of state aid for local education. An unevenly distributed local property tax base further compounds the problem.

#### Outlook

- Despite many shortcomings, the local option sales tax will continue to play a significant role in local government finance in Tennessee.
- The local option sales tax will face growing challenges that threaten to erode its relative importance in the future.

Threats to the local option sales tax come from the following sources:

- 1. Continuing changes in household consumption patterns that favor services (that are currently lightly taxed) over goods (that are currently heavily taxed) will negatively impact future sales tax growth. Attempts to expand the sales tax base to more household services will produce modest gains, given that the most important (and least likely taxable) services include housing and medical care.
- 2. Cross-border shopping continues to be a problem and may worsen if more surrounding states exempt food from the sales tax.
- 3. Growth in catalog and Internet sales compounds the problem of an eroding sales tax base. A University of Tennessee study estimates that by 2006 local governments in Tennessee will lose 4.87 percent in sales tax revenue because of electronic commerce. The study also estimates that by 2006 Tennessee would need to raise the sales tax by a greater percentage (1.73 percent) than any other state to replace lost state and local sales tax revenue from (1) remote sales, (2) changing household spending patterns, and (3) tax exemptions.
- 4. Increased global competition places limits on Tennessee's ability to shift its state and local sales tax problems onto the business sector.
- 5. The federal government is not likely to come to the rescue of state and local governments in their battle to protect the sales tax base from untaxed remote sales.

## Introduction

The local option sales tax generated \$1.45 billion for Tennessee counties and municipalities during fiscal year 2000, second to the property tax in generating own-source tax revenue for Tennessee local governments.

In fiscal year 1998-99, local sales taxes accounted for almost 30 percent of total local tax collections in Tennessee, compared to only 11.5 percent of local tax collections in the United States. Local governments in only six other states in fiscal year 1999 had a higher dependence on general sales tax collections than Tennessee.<sup>1</sup> Therefore, understanding Tennessee local government finance issues requires a broad appreciation of many of the elements of the local option sales tax.

The purpose of this report is to provide information on the local option sales tax in a manner useful to the general public, local government officials, and those specializing in the field of local government finance. As such, the report includes material on the local option sales tax of general interest to all readers as well as more detailed statistical and analytical material of interest to a more limited readership.

The format of this report (as well as the other reports in this series) is as follows:

**History-** Many of the tax's current characteristics can be better understood by reviewing the tax's legislative and administrative history. The local option sales tax, while sharing many common elements with the state sales tax, has unique differences that are rooted in its history.

**Utilization and Limitations**- This section describes the utilization of the local option sales tax since its authorization in 1963 and its limitations as a major source of local government revenue.

**Elasticity**- This key characteristic of a tax measures its growth trend over time relative to the growth trend in personal income. If the growth in revenue from a tax (without any tax rate or base changes) exceeds growth in personal income, the tax is characterized as elastic. If it grows slower than personal income, it is characterized as inelastic. When local government officials express concern and disappointment when revenues do not keep pace with growing expenditure demands, they are, often without realizing it, dealing with what is clinically a tax elasticity problem.

Stability/Volatility- This characteristic of a tax is concerned with its behavior over the course of a business cycle. Different taxes react differently during business cycles. Since most local government programs are not easily adjusted downward during recessions (especially education expenditures), revenue stability is a desirable characteristic.

**Equity-** The fairness of the sales tax is addressed from several directions. To what extent do taxpayers with similar income face similar sales tax liabilities (horizontal equity)? How do cross-border shopping, catalog and Internet purchases impact the horizontal equity of the sales tax? Why are sales taxes regressive? All these questions are addressed in this report.

**Tax Base Disparities**- How viable is the local option sales tax as a source of revenue to the many individual counties and municipalities in the state? The distributions of both the tax base and the single article untaxed base across the state are analyzed in detail in this report.

Outlook- What is the outlook for the local option sales tax in the 21st century? What new challenges will it face and what are the likely outcomes? This final evaluation of the tax is taken up in the Outlook section of this report.

## History

The local option sales tax was authorized in 1963 following years of pressure by local governments who sought additional local home rule taxing authority that would provide them with an additional source of revenue and some relief from what many believed to be relatively high property tax burdens.<sup>2</sup> Both the Tennessee Municipal League and the Tennessee County Services Association sponsored the original bill authorizing a local option sales tax. A local option sales tax was also a recommendation by the Legislature's own Legislative Council Committee in its 1962 study on the tax structure of state and local governments.<sup>3</sup>

The bill passed allowed local governments, through the referendum process, to impose a local option sales tax of up to one percent (actually the law allowed a local rate of up to 1/3 the state sales tax rate, which at the time was three percent). The tax base was the same as for state sales tax purposes with the following exceptions: (1) energy sales were exempt (gas, electricity, coal, fuel oil, etc.), and (2) the maximum local sales tax on a single article was limited to \$5 (known as the single article cap or limitation). The law required that revenue raised from local option sales taxes be distributed (1) 50 percent for local education and shared among local government school systems on the same basis as county property taxes are distributed for school purposes; and (2) 50 percent on the basis of the situs of tax collections.<sup>4</sup> The law allowed local governments to share, by contract with their county government, if desired, the second 50 percent of the revenue.

Table 1 provides a brief history of increases in the local option sales tax law since its inception in 1963. Table 1 also reflects changes in the state sales tax rate for that period, and the resulting combined sales tax rate. See Appendix A for a more detail description of the significant changes to the local option sales tax law.

Table 1 Changes in Maximum Local Option Sales Tax Rate

Year	State Sales Tax Rate	Maximum Allowable Local Option Sales Tax	Combined Sales Tax Rate
1963	3.00%1	1.00%	4.00%
1968		1.50%	4.50%
1971	3.50%	1.75%	5.25%
1976	4.50%	2.25%	6.75%
1984	5.50%	2.75%	8.25%
1992	6.00%		8.75%

Source: Tennessee Department of Revenue

<sup>&</sup>lt;sup>1</sup> Existing state sales tax rate at time local option rate authorized.

## **Utilization and Limitations**

The local option sales tax is now imposed in all 95 counties. Municipalities in some counties impose local option rates at a higher level than the counties in which they are located. Appendix B of this report shows the current local option sales tax rate in each county and rates in cities that have imposed higher rates than the rates in their respective counties. As of March 2002, thirty counties already imposed the maximum local option rate of 2.75 percent, leaving these local governments little additional fiscal flexibility in the future beyond property tax rate increases.

Counties imposed local option taxes in a frenzy following its authorization by the Legislature in 1963. By 1964, the tax was collected in seven counties, by 1965 in 13 counties, by 1966 in 26 counties, by 1967 in 56 counties, by 1968 in 69 counties and by 1969 in 78 counties. By 1983, the tax was levied in all 95 counties.<sup>5</sup>

The local option tax provided some relief during the 1960s, 1970s, and early 80s from growing local revenue needs that would have otherwise placed increased pressure on the local property tax. However by the mid 1980s, much of the potential of the local option sales tax had been utilized. Figure 1 shows the acceleration in the utilization of the local option sales tax through 1986, as measured by the number of counties imposing the tax at a rate of two percent or more.

Number of Counties Year

Figure 1 Number of Counties with a Local Option Tax Rate of Two Percent or More

Source: Tennessee Department of Revenue

While the rapid utilization of the local option sales tax initially took some pressure off the local property tax, that period has ended. It now appears that the local property tax in Tennessee is again rising in importance relative to the local option sales tax. In fiscal year 2000, the ratio of local option sales taxes to property taxes was .46.6

#### Single Article Limitation

The single most unique element of the local option sales tax is the single article cap or limitation.<sup>7</sup> The current cap limits the local option sales tax liability on the sale of single item to \$1600 times the local tax rate. The original cap (\$5 tax) was placed in the original bill authorizing the local option sales just days before the bill became law. Despite this somewhat unique feature of the law, newspaper reports of

legislative happenings during the 1963 Legislative session carried no mention of the reasoning behind the amendment that resulted in the single article cap. Despite the absence of a written record explaining the reasoning behind the amendment, it is widely believed that the amendment was introduced at the insistence of retail automobile dealers who feared that local option taxes would result in dealers in counties that imposed the tax losing business to dealers in counties that did not. Below is a concentrated listing of changes to the single article limitation. A more complete description is given in Appendix A.

Table 2 Single Article Limitation Tax Changes Since 1963

Year	Change
1968	Increased maximum from \$5 tax to \$7.50.
1983	May apply local sales tax rate to the first \$667 of an article purchased.
1984	May apply local sales tax rate to the first \$889 of an article purchased.
1985	May apply local sales tax rate to the first \$1,100 of an article purchased.
1990	May apply local sales tax rate to the first \$1,600 of an article purchased.

Source: Tennessee Department of Revenue

#### **Unutilized Tax Potentials**

Local governments have two ways to increase local sales tax collections. They may raise the local option sales tax rate, if not already at the maximum of 2.75 percent, or they may request the Legislature to remove or increase the local single article cap. As shown in Table 2, although the cap has been raised over the years, it is still set at only \$44 (based on a 2.75 tax rate and the \$1,600 cap).

The distribution of the potential revenue from repeal of the single article cap (limitation) has two interesting aspects: (1) the distribution of the potential additional revenue by taxing jurisdiction and (2) the distribution of the potential additional revenue by vendor classification or industry code.

Table 3 provides details on the distribution of the state sales tax base, local sales tax base, and exempt single article limitation tax base, for each county, for fiscal year 1999 - 2000. Table 3 shows that the state tax base and local tax base have a similar distribution.

In contrast, the local sales tax base and the single article untaxed base have some noteworthy differences in some counties. In general, counties with a very small local tax base have very little in the way of exempt single article sales. This generally results from a relatively small retail trade base and the absence of any, large-scale industrial activity.<sup>10</sup>

The most noticeable difference in the distribution of the local tax base and the distribution of the untaxed single article tax base occurs in those counties with either a very large industrial presence (such as an Alcoa, an Eastman Chemicals, or an Oak Ridge National Laboratory complex) and/or a major retail trade center, such as the Cool Springs retail trade area in Williamson County.

Table 3 Distribution of State and Local Sales Tax Base and Single Article Untaxed Base, Fiscal Year 1999-2000

					. A	Single Article	
	State Base		Local Base		U	ntaxed Base	
(In County	Millions) (%) (1) (2)	(In	Millions) (3)	(%) (4)	(In	Millions) (5)	(%) (6)
·							
ANDERSON\$	770.71.0%			1.0%		148.5	
BEDFORD\$	297.20.4%			0.4%		41.6	
BENTON\$	118.80.2%	'		0.2%		11.7	
BLEDSOE\$	41.00.1%			0.1%		•	0.0%
BLOUNT\$	1,287.71.7%			1.5%		288.0	
BRADLEY\$	890.01.2%	·		1.2%		116.3	
CAMPBELL\$	263.00.4%			0.4%		21.8	
CANNON\$	44.60.1%			0.1%			0.1%
CARROLL\$	149.70.2%			0.2%	·	14.4	
CARTER\$	313.20.4%			0.4%		45.2	
CHEATHAM\$	155.80.2%		•	0.2%		14.6	
CHESTER\$	96.70.1%			0.1%	'	27.0	
CLAIBORNE\$	125.40.2%	·\$	118.3	0.2%	\$	6.7	0.1%
CLAY\$	35.70.0%	·\$	33.3	0.1%	\$	2.6	0.0%
COCKE\$	241.10.3%	\$\$	212.4	0.3%	\$	21.4	0.2%
COFFEE\$	631.80.8%	\$\$	514.4	0.8%	\$	92.2	1.0%
CROCKETT\$	47.20.1%	·\$	44.2	0.1%	\$	2.9	0.0%
CUMBERLAND\$	510.60.7%	\$	452.8	0.7%	\$	55.1	0.6%
DAVIDSON\$	11,914.515.99	6\$	10,100.5.	15.9%	\$	1,449.7	15.4%
DECATUR\$	87.00.1%	\$	75.7	0.1%	\$	10.7	0.1%
DEKALB\$	104.80.1%	\$	84.0	0.1%	\$	13.9	0.1%
DICKSON\$	491.20.7%	·\$	408.2	0.6%	\$	71.5	0.8%
DYER\$	396.60.5%	\$	339.0	0.5%	\$	50.1	0.5%
FAYETTE\$	122.20.2%	\$	110.3	0.2%	\$	9.5	0.1%
FENTRESS\$	88.70.1%	\$	82.9	0.1%	\$	5.1	0.1%
FRANKLIN\$	271.00.4%	\$	233.4	0.4%	\$	30.1	0.3%
GIBSON\$	358.90.5%	\$\$	282.2	0.4%	\$	61.5	0.7%
GILES\$	217.80.3%	\$\$	189.7	0.3%	\$	21.4	0.2%
GRAINGER\$	62.10.1%	,\$	51.5	0.1%	\$	10.5	0.1%
GREENE\$	491.00.7%	·\$	421.8	0.7%	\$	59.2	0.6%
GRUNDY\$	50.40.1%	s\$	46.8	0.1%	\$	3.3	0.0%
HAMBLEN\$	768.81.0%	s\$	605.5	1.0%	\$	148.1	1.6%
HAMILTON\$	4,356.25.8%			5.9%		500.4	
HANCOCK\$	16.30.0%			0.0%			0.0%
					'		

Table 3 Distribution of State and Local Sales Tax Base and Single Article Untaxed Base, Fiscal Year 1999-2000 (continued)

Onig	le mitiele Of	nuxed Buse			1999-200	S	ingle rticle	
	State Base			Local Base			ntaxed Base	
(In County	Millions) (1)	(%) (2)	(In N	Millions) (3)	(%) (4)	(In N	Aillions) (5)	(%) (6)
HARDEMAN\$	149.0	0.2%	.\$	123.9	0.2%	\$	19.9	0.2%
HARDIN\$	219.7	0.3%	.\$	184.3	0.3%	\$	32.8	0.3%
HAWKINS\$	242.2	0.3%	.\$	222.8	0.4%	\$	17.3	0.2%
HAYWOOD\$	128.6	0.2%	.\$	100.1	0.2%	\$	21.5	0.2%
HENDERSON\$	208.9	0.3%	.\$	172.4	0.3%	\$	30.8	0.3%
HENRY\$	318.0	0.4%	.\$	268.6	0.4%	\$	43.7	0.5%
HICKMAN\$	83.3	0.1%	\$	70.3	0.1%	\$	5.2	0.1%
HOUSTON\$	28.1	0.0%	\$	26.2	0.0%	\$	1.9	0.0%
HUMPHREYS\$	113.8	0.2%	.\$	104.7	0.2%	\$	8.7	0.1%
JACKSON\$	28.7	0.0%	\$	27.7	0.0%	\$	0.8	0.0%
JEFFERSON\$	293.1	0.4%	.\$	258.1	0.4%	\$	28.5	0.3%
JOHNSON\$	67.3	0.1%	\$	62.9	0.1%	\$	4.1	0.0%
KNOX\$	6,358.7	8.5%	\$	5,478.5	8.6%	\$	767.1	8.2%
LAKE\$	25.0	0.0%	\$	24.4	0.0%	\$	0.2	0.0%
LAUDERDALE \$	144.4	0.2%	.\$	125.2	0.2%	\$	14.1	0.2%
LAWRENCE\$	335.5	0.4%	.\$	291.8	0.5%	\$	42.0	0.4%
LEWIS\$	63.0	0.1%	\$	59.5	0.1%	\$	3.0	0.0%
LINCOLN\$	219.9	0.3%	.\$	189.0	0.3%	\$	25.3	0.3%
LOUDON\$	357.7	0.5%	.\$	273.1	0.4%	\$	45.4	0.5%
MCMINN\$	422.3	0.6%	.\$	359.9	0.6%	\$	48.7	0.5%
MCNAIRY\$	132.3	0.2%	.\$	117.7	0.2%	\$	8.7	0.1%
MACON\$	112.8	0.2%	.\$	100.3	0.2%	\$	7.3	0.1%
MADISON\$	1,539.6	2.1%	\$	1,325.0	2.1%	\$	176.2	1.9%
MARION\$	229.2	0.3%	.\$	201.2	0.3%	\$	18.0	0.2%
MARSHALL\$	214.3	0.3%	.\$	181.6	0.3%	\$	31.1	0.3%
MAURY\$	742.5	1.0%	.\$	641.9	1.0%	\$	87.3	0.9%
MEIGS\$	55.7	0.1%	\$	34.6	0.1%	\$	2.5	0.0%
MONROE\$	293.6	0.4%	.\$	257.4	0.4%	\$	27.7	0.3%
MONTGOMERY\$	1,341.9	1.8%	\$	1,161.5	1.8%	\$	148.4	1.6%
MOORE\$	13.6	0.0%	\$	13.4	0.0%	\$	0.2	0.0%
MORGAN\$	41.5	0.1%	\$	37.5	0.1%	\$	3.9	0.0%
OBION\$	318.1	0.4%	.\$	274.3	0.4%	\$	44.7	0.5%
OVERTON\$	98.0	0.1%	\$	87.3	0.1%	\$	10.1	0.1%
PERRY\$	30.4	0.0%	\$	28.5	0.0%	\$	1.7	0.0%
PICKETT\$	24.2	0.0%	\$	23.2	0.0%	\$	0.9	0.0%
POLK\$		0.1%			0.1%			0.0%
PUTNAM\$		1.1%			1.1%		101.6	

Table 3 Distribution of State and Local Sales Tax Base and Single Article Untaxed Base, Fiscal Year 1999-2000 (continued)

(I	State Base Millions)	(9/)		Local Base Millions)	(%)	Ú	Single Article Intaxed Base Millions)	(0/)
County	(1)	(%) (2)	(III	(3)	(4)	(III	(5)	(%) (6)
RHEA\$	176.9	0.2%	\$		0.2%		23.8	0.3%
ROANE\$	483.4	0.6%	\$	412.1 .	0.6%	\$	64.2	0.7%
ROBERTSON\$	384.9	0.5%	\$	332.3 .	0.5%	\$	50.1	0.5%
RUTHERFORD \$	2,101.6	2.8%	\$	1,758.2 .	2.8%	\$	275.4	2.9%
SCOTT\$	136.4	0.2%	\$	128.4 .	0.2%	\$	9.5	0.1%
SEQUATCHIE\$	64.9	0.1%	\$	54.6	0.1%	\$	9.6	0.1%
SEVIER\$	1,808.3	2.4%	\$	1,712.4 .	2.7%	\$	56.8	0.6%
SHELBY\$	12,214.3	16.3%	\$	10,426.1	16.4%	\$	1,491.5	15.9%
SMITH\$	115.4	0.2%	\$	97.0	0.2%	\$	10.9	0.1%
STEWART\$	51.1	0.1%	\$	44.4	0.1%	\$	6.6	0.1%
SULLIVAN\$	1,870.8	2.5%	\$	1,577.3 .	2.5%	\$	267.1	2.8%
SUMNER\$	914.9	1.2%	\$	817.4 .	1.3%	\$	92.8	1.0%
TIPTON\$	267.0	0.4%	\$	217.1 .	0.3%	\$	46.3	0.5%
TROUSDALE\$	29.1	0.0%	\$	26.3	0.0%	\$	2.7	0.0%
UNICOI\$	79.7	0.1%	\$	65.4	0.1%	\$	11.6	0.1%
UNION\$	47.8	0.1%	\$	44.3	0.1%	\$	3.4	0.0%
VAN BUREN\$	15.2	0.0%	\$	15.0	0.0%	\$	0.1	0.0%
WARREN\$	340.6	0.5%	\$	298.3 .	0.5%	\$	36.4	0.4%
WASHINGTON\$	1,407.4	1.9%	\$	1,217.7 .	1.9%	\$	161.6	1.7%
WAYNE\$	59.9	0.1%	\$	56.0	0.1%	\$	3.7	0.0%
WEAKLEY\$	214.6	0.3%	\$	189.8 .	0.3%	\$	19.6	0.2%
WHITE\$	171.5	0.2%	\$	123.5 .	0.2%	\$	45.7	0.5%
WILLIAMSON\$	2,227.5	3.0%	\$	1,774.5 .	2.8%	\$	352.1	3.7%
WILSON\$	772.8	1.0%	\$		1.0%		109.0	1.2%
OUTSIDE STATE\$	7,165.8	9.6%	\$	5,824.3 .	9.2%	\$	1,040.8	11.1%
TOTAL\$	74,823.2	100.0%	\$	53,495.2 .	100.0%	\$	9,389.6	100.0%

Source: Tennessee Department of Revenue

The size and distribution of the untaxed local sales tax base among counties is more easily understood and interpreted by considering the distribution of the untaxed single article base among vendors on the basis of their economic activity. Table 4 presents the distribution of the untaxed base by business classification (fiscal year 2000-2001 data). Businesses are classified using the Standard Industrial Classification Codes of the U. S. Department of Commerce.

The data in Table 4 make clear why the untaxed single article tax base is inconsequential in some counties and significant in others. In fiscal year 2000-2001, almost 70 percent of the untaxed single article base consisted of sales by new and used car dealers and other vehicle dealers (motorcycles, recreational vehicles and boats and airplanes). Counties with few or no such vehicle dealers would clearly have little to gain from repeal of the single article cap.

Table 4 2000-01 Distribution of the Untaxed Single Article Base by Business Classification

Business Activity	Untaxed Single Article Tax Base (In Millions)	Cumulative (In Millions)	Cumulative Percent of Total
Retail Automotive Dealers	\$6,359.9	\$6,359.9	69.3%
Business Services	\$479.0	\$6,838.9	74.5%
Auto Repair, Services, and Garages	\$466.2	\$7,305.1	79.5%
Wholesale Trade-Durable Goods	\$363.6	\$7,668.7	83.5%
Retail-Miscellaneous	\$230.9	\$7,899.6	86.0%
Retail-Building Materials	\$177.1	\$8,076.7	88.0%
All Others	\$1,106.4	\$9,183.1	100.0%
Total	\$9,183.1		

Source: Tennessee Department of Revenue.

## **Elasticity**

The income elasticity of the state's tax system, including the state sales tax, was last analyzed in 1999. Using data for the period 1988-1998, the elasticity of the state sales tax was estimated to be .938, making it slightly inelastic (<1). If the local and state sales tax shared a common tax base, the elasticity of the statewide local sales tax base would also be .938. However the elasticity of the statewide local sales tax base differs from that of the state tax base for two major reasons:

- The local sales tax base excludes energy sales that are taxable under the state sales tax law.<sup>12</sup>
- The local option sales tax law exempts the amount by which a single article tangible good sale exceeds \$1,600.<sup>13</sup>

The estimated difference between the state sales tax base and the local sales tax base is \$10 billion.<sup>14</sup> In addition to the difference in elasticity between the state and the local sales taxes statewide, the elasticity of the local option sales tax also varies by location across Tennessee's 95 counties and over 300 cities.

Since the elasticity of a sales tax base is the weighted sum of the elasticities of each of the items that make up the tax base, some initial observations can be made regarding the likely impact of the two exclusions mentioned above on the elasticity of the total local tax base.

Data with which to analyze the impact of the exemption of state taxable energy sales from the local sales tax base is not directly available.<sup>15</sup> Since the state sales tax rate on commercial energy sales is four times higher than the special state sales tax rate on industrial users, commercial sales are a more important element in the currently taxable state tax base than other energy sales. A recent estimate of the income elasticity of residential energy sales showed such sales to be income inelastic (an estimated elasticity of only .519).

Industry data on commercial energy purchases (gas and electricity) proved to be inconsistent. Conversations with those familiar with industry data suggested that combining commercial and industrial sales data would produce more reliable numbers. <sup>16</sup> Following this suggestion, the income elasticity of combined commercial and industrial energy sales (data for 1983-1998) was estimated using the same procedure used recently to estimate the elasticity of state taxes.

The estimated elasticity was only .16,<sup>17</sup> interpreted as a very low elasticity. To the extent that the data used represents a reasonable proxy for energy sales currently taxed under the state sales tax law (but exempt from local sales taxes), the exemption should result in a higher elasticity for the local sales tax base than for the state sales tax base. However it must be pointed out that exempt energy sales represent only ten percent of the difference between the local and state sales tax bases.

The exemption for single article sales in excess of \$1,600 is dominated by sales of new and used vehicles. <sup>18</sup> Such sales represent over 70 percent of the untaxed volume of single article sales. Using historical data on new and used retail motor vehicle dealer sales, the estimated tax elasticity for such sales is .92. <sup>19</sup> Since sales data for these retail businesses include repair and other income which are traditionally less volatile over time, the use of total motor vehicle dealer sales in the elasticity estimation procedure likely understates the more elastic and volatile behavior of motor vehicle sales and leases themselves. Therefore, it is likely that the removal of the single article cap would increase the elasticity of the local sales tax, and more than offset the impact of inelastic commercial and industrial energy sales.

Detailed estimates of the elasticity of the local option sales tax in each county are presented in Appendix C. The estimated elasticities are based on data for fiscal years 1987 through 1998, using measures of the local option sales tax base provided by the Department of Revenue.<sup>20</sup> The elasticity estimates in Appendix C show that the statewide elasticity of the local option sales tax base (.84) is less than the previously estimated elasticity of the state sales tax base (.94). In 31 counties, the estimated elasticity is less than .75; in 83 counties the estimated elasticity is less than 1 (inelastic).

The four major metropolitan counties (Davidson, Hamilton, Knox, and Shelby) all have estimated elasticities within the narrow range of .74 to .82 (all inelastic). Only 12 counties have a local option sales tax base with an estimated elasticity greater than 1 (elastic). The computed elasticities are statistically significant in all counties with the exception of Lake County. This county has a local option sales tax base that exhibited significant instability over the period observed. This could be the result of errors in measurement or variability introduced by the activities of a single large business that dominates activity in this county.

The estimates clearly show that in most counties, the local option tax base is an inelastic source of revenue (relative to the growth in county personal income). As shown in the report on the local property tax, local property taxes for most counties are also inelastic revenue producers. Since the two major sources of tax revenue to most local governments are inelastic, it is not surprising that many local governments have been experiencing bouts of fiscal stress over a long number of years. Some bought time during the last twenty years making ends meet by raising local option sales tax rates, by recently increasing property tax rates, and increasing their dependence on state-shared taxes.<sup>21</sup> The elasticity estimates in Appendix C provide the clinical evidence that the fiscal malaise in local government budgets has been partly caused by reliance on the local option sales tax.

# Stability/Volatility

While the long-run income elasticity of a tax is a critical concern to local tax officials, so is an appreciation of a tax's short-run behavior over the business cycle. A tax that moves in the opposite direction to the business cycle or with less variability than the overall economy can provide a degree of revenue stability and enable local government to avoid spending cuts during the worse possible time, a recession.

In contrast, a tax that mirrors changes in economic activity but with more volatility can make an already bad situation worse. In the absence of a significant rainy day fund, also known as a revenue fluctuation reserve fund, a volatile tax whose behavior otherwise follows, but in a magnified manner, the general direction of an economic slowdown can place a local government budget under great short-run stress. An adequate rainy day fund is a luxury found in few state budgets and fewer still local government budgets.

In general, taxes that are elastic possess the unfortunate short-run characteristic of high volatility, relative to economic activity in general and other, less volatile taxes. One good feature of a tax is offset by one bad feature. Balancing these two characteristics against one another is fiscally and politically challenging. While some might prefer a local tax structure that produces more than enough revenue growth to cover growing expenditure needs, the ultimate price to pay will be the real possibility of a fiscal crisis during a recession.

The volatility of the local sales tax base was measured using trend variability, a statistical measure of the volatility or variability of a tax base over the business cycle. The procedure followed was to first estimate for each county the average annual growth in its sales tax base. This was accomplished by regressing the natural log of the tax base on a linear time trend. The volatility of the estimated annual growth for each county was then evaluated using the standard deviation of calculated residuals.<sup>23</sup>

For a majority of counties (82), the trend growth of the local option tax base is less than the trend growth of county personal income. In fact, the ratio of the annual statewide local tax base growth (5.4 percent) to the annual growth of state personal income (6.4 percent) is similar to the estimated statewide local option sales tax's elasticity shown in Appendix C (.84). This is not surprising since tax elasticity is a measure of the ratio of growth in a tax base to growth in personal income.

In general, the local tax base is less stable in the short-run than county personal income, which, as expected, itself fluctuates over the business cycle. Appendix D shows that in all but 10 counties, the volatility of the local option sales tax base exceeded the volatility of county personal income. The exceptions included Blount, Clay, Cocke, Dyer, Lewis, Lawrence, Maury, Overton, Unicoi, and Wayne Counties.

This should not be interpreted to mean that local governments must seek out other forms of taxation to improve the overall stability of their local tax structures. The tradeoff between long-run growth (elasticity) and short-run volatility can be dramatic. In a recent analysis of the volatility of certain state tax sources, increased stability came at a significant price.<sup>24</sup> Several of the state's most stable tax sources (gasoline tax, special petroleum tax, beer tax, and alcoholic beverage tax) had average annual growth rates of less than two percent. Tax revenue growth averaging two percent per year would fail to cover inflation, leaving local government under continuous pressure to raise tax rates to cover the service needs of a growing population.

# **Equity**

Most would agree with the proposition that households and business should bear their "fair share" of taxes as a cost of living in a civilized society. Many, but not all, would agree that a "fair share" should be based on a households or business's ability to pay taxes.<sup>25</sup> The "ability to pay" principle of taxation has two dimensions, horizontal equity and vertical equity. While a portion of the sales tax is paid by businesses, most of the discussion that follows focuses on the impact of the sales tax on households. While difficult to trace, even sales taxes directly paid by businesses impact households. Business taxes ultimately affect workers, customers, and owners, as market mechanisms and adjustments convert business taxes into impacts on wages, product prices, and profits.

#### Horizontal Equity

Horizontal equity is concerned with the distribution of a tax among households that are similar in their ability to pay, generally as measured by annual income. With regards to the local option sales tax, the principal of horizontal equity requires that households with the same ability to pay should face the same local option sales tax burden. Evaluating the horizontal equity of a tax requires recognition or acceptance that a "good" or acceptable tax is one that treats equals in a reasonably equal fashion. The evaluation process is difficult for many reasons, the least of which is agreement over what we mean by "equals." Are families or households equal because they have the same number of family members, or receive the same amount of income, or because they have the same amount of assets, or some combination. A consensus on the proper measure of "equality" is not obvious or easily obtained.

Whatever the basis chosen for defining equals, various circumstances exist in Tennessee and other states that work against horizontal equity in the application of the local sales tax.

#### **Consumption Patterns**

Consumption patterns significantly impact both the horizontal and vertical equity of the sales tax. While little hard Tennessee data is available with which to gauge the impact of variations in consumption patterns among households with similar incomes, it is nonetheless a consideration.

Tennessee's sales tax has traditionally been levied on all sales of tangible goods (the major exception being sales of petroleum products, such as gasoline and diesel fuel), but only on a select list of services. The result is that a household's sales tax liability somewhat depends on its spending preferences between goods and services.

Households that spend a relatively large share of their income on services, versus tangible goods, will face a lower sales tax liability than an otherwise similar household that favors tangible goods. While all households, in a sense, have an equal opportunity to structure their purchases to minimize the sales tax bite, the result is still a failure to achieve horizontal equity.

#### Border Problem

Tennessee borders eight states. No other state in the country borders more states. Of these eight states, four (Alabama, Arkansas, Mississippi, and Missouri) provide little or no sales tax incentive to Tennessee shoppers. Missouri, while having lower tax rates, is included in this short list since it is not readily accessible to most Tennesseans.

Georgia	<ul> <li>has a combined state and local sales tax of six to seven percent in nearby border locations, but exempts food from its four percent state tax.</li> </ul>
Kentucky	<ul> <li>has a six percent state sales tax rate but fully exempts food.</li> </ul>

North Carolina — has a combined 6.5 percent rate in locations bordering Tennessee, but exempts food from the state sale tax (four percent rate).

Virginia — has combined state and local sales tax rates in locations near Tennessee of only 4.5 percent, and is phasing in a reduction in the state sales tax on food (the state rate of 3.5 percent on food is scheduled to fall to 3.0 percent in April 2003).

Further exacerbating the sales tax differential problem are lower excise tax rates on cigarettes and liquor in some bordering states.

Some Tennesseans living near border locations of low tax (or food exempt) sales tax states pay less in sales taxes than Tennesseans not in close proximity to such locations. While no one is "at fault" for this result, it is nonetheless a clear example of horizontal equity failure. Tennesseans living in close proximity to such locations are attracted by these potential tax savings and frequently shop in these states to avoid the relatively and absolutely high Tennessee state and local sales tax, and other relatively high excise taxes. Clearly such households pay less sales tax than Tennessee households located more distant from border locations. Such tax avoidance is easily accomplished and not subject to significant state intervention. The result is some violation of the requirements of horizontal equity.

#### Catalog and Internet Purchases (Electronic Commerce)

The purchase of tangible goods and some services from out-of-state catalog and Internet vendors further worsens horizontal equity. Many of these remote sellers are beyond the taxing jurisdiction of Tennessee state and local governments. If such sales were evenly undertaken by all households in equal proportions, few tax distortions would occur. But the use of catalogs, telephone, and the Internet to make purchases is distributed unevenly, as is the occurrence of cross-border shopping. While evidence exists clearly showing that the use of the Internet to consummate the purchase of goods and services rises as income rises (causing obvious vertical equity problems), the evidence also suggests that the use of such means to purchase goods and services also varies among otherwise similar households. As long as states and local governments have no power to impose their tax jurisdiction on remote sellers, the random effects of catalog and Internet sales will continue to negatively impact horizontal equity.<sup>28</sup>

A 2001 study conducted by the Center for Business and Economic Research at the University of Tennessee determined that Tennessee lost the equivalent of 1.8 percent of the state's sales tax revenue because of the Internet and other electronic commerce sales, ranking Tennessee sixth in the nation in projected local revenue losses. The study estimates that by 2006 the loss to local governments in Tennessee will equal 4.87 percent of total local taxes. Tennessee would need to raise the combined state and local sales tax by approximately 1.58 percentage points to replace the estimated state and local sales tax loss of over \$1.2 billion from electronic commerce.

Tennessee would need to raise the sales tax by an estimated 1.73 percent by 2006 to replace the total lost revenue estimated for local and state sales taxes resulting from:

1. electronic commerce,

- 2. trends toward the purchase of untaxed services over goods, and
- 3. the pattern of legislative tax exemption of certain items from the sales tax.

This is the largest estimated sales tax increase needed in the country to replace lost sales tax revenue.<sup>29</sup>

#### **Business Taxes**

While in theory businesses should not be subject to a sales tax (since the tax is presumably a tax on household consumption of final goods and services), businesses do pay sales and gross receipts taxes on purchases of goods and services used as inputs in the production process. This can further worsen horizontal equity.

A subtle result of subjecting business purchases to a sales tax is the pyramiding of sales taxes into the final price of business products. The actual amount of pyramiding depends on the extent to which a business' inputs are subject to a sales tax and the number of times such items are taxed. Since pyramiding will vary from business to business, final product sales will reflect different effective sales tax rates. This can result in households with equal incomes facing different effective sales tax rates on the products they purchase.

#### Vertical Equity

Vertical equity is concerned with the distribution of a tax burden among households with different income (different ability to pay). A tax that imposes rising relative household tax burdens as income rises would be classified as progressive. A regressive distribution implies the opposite. A proportional tax implies that a tax, or group of taxes, represents a fixed proportion of income, regardless of income level. Many state income taxes are designed to be progressive while most state and local sales taxes are regressive. Local property taxes, although there is some disagreement, are thought to be proportional over a wide range of incomes.

While classifying taxes is generally straightforward, determining the "best" taxing scheme is not. There is no scientific or empirical way of showing that progressive taxes based on a household's "ability to pay" and measured by income is better or more efficient than is a regressive tax. In the United States, we observe various taxing methods being used simultaneously by federal, state, and local governments. The great variation in the types of taxes used by state and local governments across the United States provides evidence of wide variation in voter perceptions of what is fair and not fair in regards to the distribution of taxes among households.

Another often-overlooked element to this issue is that a single regressive tax, by itself, is not necessary bad or evil. A broad-based sales tax that raises substantial amounts of tax revenue, some paid by visitors, is a legitimate tax source. If the resulting tax distribution is deemed unacceptable or unfair, this facet of the tax can be offset by (1) utilizing other taxes that are progressive or (2) implementing programs or procedures to target relief to low-income residents. Existing programs designed to affect such equity balancing are already in effect in many states in the form of income tax sales tax credits (often refundable) or standalone sales tax rebate programs.<sup>30</sup>

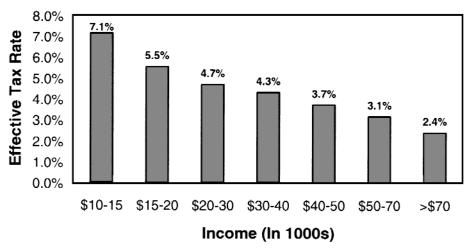
Sales taxes are not regressive by deliberate design. They are regressive because of household expenditure patterns. While the actual regressiveness of sales taxes varies by state, all are generally regressive; even in states that exempt food.<sup>31</sup> Household spending generally reflects three major patterns that explain why sales taxes are regressive:

- (1) the relative importance of tangible goods purchases, especially necessities, falls as income rises;
- (2) the relative importance of services, generally exempt, rises as income rises; and
- (3) the relative amount of household saving (income not spent on either services or tangible goods) rises as income rises. The end result of these patterns or behaviors is that the distribution of a general sales tax is regressive.<sup>32</sup>

Although regressive, sales tax liabilities generally rise as income rises. This somewhat obvious element of sales taxes is frequently overlooked or deliberately ignored. Low-income households do not pay most of the sales taxes levied in Tennessee or any other state. Moderate and upper income households are responsible for a majority of the spending on both goods and services, and therefore pay the majority of such taxes.

Figure 2 reflects estimated sales tax burdens for a household of four persons at various income levels.<sup>33</sup> The data is based on Consumer Expenditure Survey data (1996-97 combined data)<sup>34</sup> and estimated sales tax liabilities under the Tennessee sales tax. Data for households with income less than \$10,000 was omitted because of data problems associated with this group.<sup>35</sup> Less than ten percent of Tennessee's population was in a four-person household with incomes less than \$10,000 in 1996-97. Figure 2 reflects the common regressive impact of a sales tax.

Figure 2 Relative Sales Tax Burdens (Four-Person Household)



Source: Based on Consumer Expenditure Data (1996-97)

While the Consumer Expenditure Survey is not designed to specifically measure household saving, it does provide an indirect measure of the amount of household saving by income. While only an indirect measure of saving, it is consistent with evidence from other studies on the distribution of saving by income.<sup>36</sup>

1996-97 Saving by Four-Person Household Figure 3 \$30 After-Tax Income Minus \$25 Spending (In 1000s) \$20 \$15 \$10 \$4 \$5 \$0 -\$5 -\$2 -\$6 -\$6 -\$10 -\$7 -\$9 -\$15 \$10-15 \$15-20 \$20-30 \$30-40 \$40-50 \$50-70 Income (In 1000s)

Source: Based on Consumer Expenditure Survey Data (1996-97)

Figure 3 shows estimates of saving by four-person households by income<sup>37</sup> using the same income groupings used in Figure 2. Again, the calculations are estimates from a survey that was not intended to measure actual saving. The calculations show that on average, only upper income households have positive levels of saving. This does not mean that all lower income households do not save, but that the calculation of the average level of expenditures for these households exceeds their reported after-tax income. The non-saving households clearly outnumber those that do some positive saving.

Finally, not to be lost in the debate on vertical equity and the sales tax is a reminder that moderate and upper income households pay the lion's share of sales taxes. This results from a combination of their numbers and their large absolute level of spending. Figure 4 shows the importance of both their relative numbers and their total spending. Households of four persons with income greater than \$40,000 represented over 57 percent of all four-person households, based on the 1996-97 CES data for the United States, and accounted for over 70 percent of estimated taxable spending.<sup>38</sup> Therefore while the tax is properly classified as regressive, moderate, high, and wealthy income households pay a majority of the sales tax paid by households.

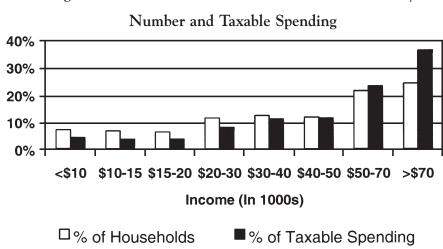


Figure 4 Distribution of Four-Person Households by

Source: Based on Consumer Expenditure Data (1996-97)

## **Taxbase Disparities**

The local option sales tax base is very unevenly distributed, as shown in Table 3 and more clearly in Table 5. Table 5 shows the distributions of both the per capita local sales tax base and the per capita untaxed single article tax base, by county for fiscal year 1999-2000. The coefficient of variation for per capita local sales tax base is 56.5 percent while the coefficient of variation for the more unevenly distributed per capita untaxed single article tax base is 73.6 percent. Note: The coefficient of variation is a measure of the relative dispersion or spread in the values of a variable around its mean. A variable with no variation in measured values (all the same) would have a zero percent coefficient of variation. The relatively uneven distribution of the local option sales tax base, in conjunction with the similarly uneven distribution of the local property tax base formed the basis for the original small school system litigation against the state that sought increased state equalization funds for local education.<sup>39</sup>

The significant variation in the local option sales tax base calls into question the usefulness of such a tax to many governments as a viable source for financing local expenditures, most of which are for services to people. While the state has assumed an increased financial responsibly for insuring more equalized local spending on primary and secondary education, it is unlikely to extend such a fiscal presence into other areas of local finance. Without an increase in state revenue sharing designed to assist local governments in providing other local services, disparities in the level of local services other than education will continue among Tennessee counties and municipalities.

Disparities themselves can change over time, benefiting some counties, and harming others. One example of such dynamic change has been documented in a recent public finance journal article. The article analyzed the impact of new urban malls on the distribution of retail trade among counties in proximity to the new malls.<sup>40</sup> The appearance of new large urban malls changed the spatial distribution of retail trade.

In Tennessee, such changes not only impacted local sales tax collections, but as a result of a complicated chain of events, state-shared educational revenue. This occurred as a result of the state's equalization formula's inclusion of the local sales tax base as one of the variables used to measure local tax potential. The new urban malls attracted away retail trade from generally rural counties, causing the unfortunate result of lowered local option sales tax collections. The equalization formula, designed to offset relatively low sales tax bases, provided a degree of equalization from the lowered sales tax collections. Unfortunately, the equalization formula was not able to offset the full loss of local sales tax collections with an equal increase in state aid.<sup>41</sup>

Table 5 Distributions of Local Tax Base and Untaxed Single Article Tax Base, 1999 - 2000

County		Capita Local Cax Base	apital Single le Tax Base
ANDERSON	\$	8,721	\$ 2,091
BEDFORD	\$	6,893	\$ 1,192
BENTON	\$	6,274	\$ 712
BLEDSOE	\$	3,418	\$ 307
BLOUNT	\$	9,528	\$ 2,802
BRADLEY	\$	9,005	\$ 1,382
CAMPBELL	\$	6,159	\$ 566
CANNON	\$	3,256	\$ 431
CARROLL	\$	4,425	\$ 489
CARTER	\$	5,017	\$ 847
CHEATHAM	\$	3,908	\$ 403
CHESTER	\$	4,669	\$ 1,816
CLAIBORNE	\$	3,978	\$ 226
CLAY	\$	4,583	\$ 356
COCKE	\$	6,576	\$ 663
COFFEE	\$	11,097	\$ 1,989
CROCKETT	\$	3,138	\$ 204
CUMBERLAND	\$	9,989	\$ 1,216
DAVIDSON	\$	19,056	\$ 2,735
DECATUR	\$	7,021	\$ 994
DEKALB	\$	5,191	\$ 862
DICKSON	\$	9,489	\$ 1,661
DYER	\$	9,231	\$ 1,364
FAYETTE		3,507	\$ 302
FENTRESS		5,071	\$ 312
FRANKLIN	\$	6,170	\$ 797
GIBSON	\$	5,875	\$ 1,281
GILES		6,532	737
GRAINGER	\$	2,548	\$ 521
GREENE	,	6,927	972
GRUNDY		3,333	232
HAMBLEN	\$	11,171	2,732
HAMILTON		12,723	1,698
HANCOCK		2,242	150
HARDEMAN	\$	5,067	814
HARDIN		7,299	1,297
HAWKINS		4,446	344
HAYWOOD		5,158	1,110
HENDERSON		6,960	1,243
HENRY		8,927	1,453
HICKMAN		3,301	244
HOUSTON		3,324	240
HUMPHREYS		6,092	508
JACKSON	\$	2,870	\$ 84

Table 5 Distributions of Local Tax Base and Untaxed Single Article Tax Base, 1999 - 2000 (continued)

County		apita Local ax Base	apital Single e Tax Base
JEFFERSON	\$	5,722	\$ 633
JOHNSON		3,758	246
KNOX		14,569	2,040
LAKE		3,000	26
LAUDERDALE		5,167	583
LAWRENCE		7,363	1,059
LEWIS		5,345	265
LINCOLN	'	6,347	849
LOUDON		6,845	1,137
MCMINN		7,757	1,049
MCNAIRY		4,843	356
MACON		5,407	395
MADISON		15,273	2,032
MARION		7,479	669
MARSHALL		6,871	1,176
MAURY		9,112	1,239
MEIGS		3,411	250
MONROE		7,236	780
MONTGOMERY		8,976	1,147
MOORE		2,606	30
MORGAN	'	2,006	207
OBION		8,507	1,387
OVERTON	'	4,442	514
PERRY		3,774	226
PICKETT		4,935	198
POLK	\$	3,465	143
PUTNAM		12,197	1,701
RHEA	\$	5,315	848
ROANE	\$	8,242	1,285
ROBERTSON	\$	6,057	913
RUTHERFORD	\$	10,258	\$ 1,607
SCOTT	\$	6,344	468
SEQUATCHIE	\$	5,034	\$ 881
SEVIER		26,031	\$ 863
SHELBY		11,943	\$ 1,709
SMITH		5,783	\$ 649
STEWART		3,780	564
SULLIVAN		10,499	1,778
SUMNER		6,487	736
TIPTON		4,491	958
TROUSDALE		3,769	389
UNICOI		3,780	671
UNION		2,672	202
VAN BUREN	\$	3,003	\$ 22

Table 5 Distributions of Local Tax Base and Untaxed Single Article Tax Base, 1999 - 2000 (continued)

County	Per Capita Local Tax Base	Per Capital Single Article Tax Base
WARREN WASHINGTON WAYNE WEAKLEY WHITE WILLIAMSON WILSON	\$ 11,843 3,413 5,761 5,399 14,334	\$ 1,572 \$ 228 \$ 596 \$ 2,000 \$ 2,844
TOTAL(excludes out of state)	\$ 10,517	\$ 1,523
Count	\$ 6,700 5,875 26,031 2,00 24,025 3,785	\$ 913 \$ 797 \$ 2,844 \$ 22 \$ 2,822

Sources: Population figures from U.S. Census Bureau.

Tax base figures from Tn. Dept. of Revenue.

Note: The coefficient of variation is a measure of the relative dispersion or spread in the values of a variable around its mean. A variable with no variation in measured values (all the same) would have a zero percent coefficient of variation.

## **Other Considerations**

#### **Exportability**

One obvious method for minimizing the bite of any state or local tax is by exporting it outside the state. This is most commonly done by exporting it to tourists (through taxes on tourist-related activities), out-of-state workers (most commonly through a state income tax on income earned within a state), and to the U.S. Treasury through itemization of many state and local taxes on federal personal income tax returns.

Congress removed state and local sales taxes from the list of allowable itemized deductions in 1986 (Tax Reform Act of 1986). This effectively raised federal income tax liabilities for almost all Tennesseans who utilize itemized deductions versus the standard deduction on their federal income tax return. While taxpayers in all states that levy a state or local sales tax were impacted by the removal of sales taxes from the list of allowable itemized deductions, the loss was relatively more pronounced in Tennessee and a handful of other states that over utilize the sales tax relative to property and income taxes.

#### Competitiveness

Local sales taxes impact the competitive posture of one local government relative to other local governments within the same state and between local jurisdictions in one state and those in other states, generally those in relatively close proximity. As is true for states, the tax structure used to raise revenue in one jurisdiction can have clearly positive or negative impacts on location decisions by businesses and households. This is especially true in areas where tax differentials are significant and the transportation costs to avoid a high sales tax minimal.

However a high sales tax, or for that matter, any single tax, by itself, plays only a minor role in decisions regarding where to live and work. A high sales tax state may still be attractive to households and business as a result of generally lower "other" taxes (income taxes, property taxes, etc).

## **Outlook and Conclusions**

The local option sales tax should continue to play an important, but declining, role in local government finance. This report identifies several reasons why it will face increasing challenges as we move into the 21st Century. Several trends will continue to chip away at its viability and they will be joined by newly emerging issues that threaten to cause additional erosion to the sales tax base.

- The sales tax base has been growing at a slower rate than both the economy and total household spending. Household spending patterns since the end of WWII consistently reflect a decrease in the relative importance of expenditures on non-durable goods versus services. While most tangible goods are subject to the sales tax, many household services are not. While more personal services can be added to the base to offset this trend, many important services, such as housing, medical, and financial services, are unlikely to be added for ethical or administrative reasons.
- Cross-border shopping continues to be a serious problem for Tennessee, decreasing the state's sales tax collections. Tennessee borders several states with either lower sales tax rates or that exempt food purchases (or both). This erosion worsens as the sales tax differential rises or additional states exempt food. There is no effective way to curtail such erosion.
- Remote sales (including catalog, Internet sales and other electronic commerce) continue to grow and erode the sales tax base. Future growth in electronic commerce, coupled with an inability to require all out-of-state vendors to collect sales and use tax, is expected to worsen an already bad situation. Again state and local governments have no effective means to resolve this problem. This problem is especially troublesome for Tennessee state and local governments, who are more at risk from erosion in state and local sales taxes than most states. Tennessee state government relied on the sales tax for 57.6 percent of its total tax revenue in 1998, the highest dependence rate in the country. Local governments in Tennessee relied on the sales tax for 29.1 percent of their total tax revenue, 5th highest dependency rate in the country. Combined, Tennessee state and local governments depended on the general sales tax for 46.5 percent of their total combined taxes, more so than in any other state.
- Increased global competition will make it increasingly difficult to maintain or increase sales tax burdens on the business sector. In a global economy that consists of a growing number of businesses engaged in the production of products that can be easily produced anywhere in the world, state and local governments can ill afford to raise business taxes on an increasingly "foot loose" business sector.

These trends have led some to predict a tax Armageddon of sorts quickly approaching and threatening the underpinnings of state and local government budgets. In a recent article in *State Tax Notes*, John Mikesell stated, "unless sales taxes treat electronic commerce the same way they treat other business, they cannot and should not remain in the state revenue systems."

While the controversy rages and opinions on the lifespan of state and local sales taxes varies, it is clear that the tax can remain a major force in state and local government tax structures for many years. What is also clear, and very frustrating and annoying to many engaged in the study and administration of state and local sales taxes, is the sales tax's growing random, arbitrary, and capricious impact on taxpayers.

• Federal action has temporarily impacted state and local governments' ability to decrease the impact of Internet sales tax erosion. In 1998, Congress passed the Internet Tax Freedom Act (ITFA). The Act successfully passed with support from Internet commerce businesses and states that had a relatively large Internet presence. The Act prohibited any new federal taxes on the Internet, and placed a three-year moratorium on new state and local taxes on Internet activity. In 2001, the moratorium was extended to November 1, 2003. The Act also prohibited certain multiple and discriminatory taxes on Internet activity,

and created the Advisory Commission on Electronic Commerce (ACEC) to study the problem of Internet taxation and regulation and to report back to Congress with recommendations for a long run policy.

The Commission, which was somewhat loaded with members favoring Internet commerce and states with a large Internet presence, recently submitted its report and recommendations. However, the Commission was unable to muster a supermajority set of recommendations as required. The "less than supermajority" recommendations that were presented to Congress generally supported a continued moratorium on any new taxation and against direct federal intervention that would assist state and local governments to collect taxes on Internet activity.

Many state and local government officials were disappointed with the final recommendations of the Advisory Commission on Electronic Commerce. They were hoping for some recognition that their responsibilities to provide essential services to their citizens were endangered by their inability to apply one of their basic tax sources to a growing dimension of household spending.

At the current time it does not appear that Congress has any intention to "come to the rescue" of the state and local sales tax. Even if Congress recognizes the plight of state and local governments that are faced with an uneven tax-playing field, it is not obvious that their response to the problem would be well received by all local officials.

Even if Congress responds to the Internet tax problem faced by local governments by enacting federal laws that augments the jurisdiction of local officials over distant sellers (catalog and Internet), it would likely come with some unwelcome restrictions. Consider the following:

- 1. A single combined state and local sales tax rate for each state. While arbitrating a single rate for each state has been an ongoing process, many government officials, especially local officials, are unhappy with the prospect that a single rate may negatively impact their collections. This is true particularly in cases where the single rate reflects a lower rate than applies to local "main street" retail sales.
- 2. To simplify and rationalize electronic commerce sales tax administration, Congress could mandate a uniform sales tax base. Sales tax bases currently differ from state to state, as do state flags and license plates. A mandated uniform tax base will augment the tax potential for some states and narrow it for others. This type of federal preemption in state and local fiscal matters is inevitable if Congress gets involved.
- 3. Possible preemptions could include a federal prohibition against the taxation of food (for home consumption) as well as a prohibition against the taxation of business purchases. A food prohibition would not impact states that already exempt food from their sales tax, but would clearly impact those without such an exemption. Such an exemption would place pressure on states that currently tax food to exempt such sales. A federal prohibition against the sales taxation of business input purchases would be consistent with the argument that pyramiding of taxes should be avoided or minimized. A prohibition against Internet taxation of business purchases would be a very costly element of federal participation in the electronic commerce problem.<sup>46</sup>
- 4. A not unlikely result of federal intervention would be a requirement that remote sellers, in return for collecting and remitting sales taxes to states, be granted a reasonable level of compensation for the expenses incurred in tax administration. Tennessee currently allows out-of-state vendors compensation equal to 2% of the first \$2,500 of sales taxes collected plus 1.15% of the amount in excess of \$2,500. In-state vendors receive no vendor compensation. If federal intervention results in higher mandated vendor compensation for remote sellers, pressure will mount for similar treatment of in-state vendors.

# **Appendices**



# Appendix A

## Significant Changes to State and Local Option Sales Tax Law

Year of Change	Existing State Sales Tax Rate	Public Chapter	Description of Change
1963	3%	#329	Authorized local option sales tax at maximum rate of 1 percent.
1968	3%	#488	(1) Increases the potential local sales tax rate to 1/2 of the existing state rate (instead of 1/3), and (2) raises the single article maximum tax to \$7.50 if the local rate exceeds 1/3 of the state rate. This effectively allowed local governments to impose a local sales tax rate of up to 1.5 percent (rather than original maximum rate of 1 percent).
1971	3.5%	#117	Raises the state sales tax rate to 3.5 percent and effectively raised the maximum local option rate to 1.75 percent (1/2 of the state rate).
1973	3.5%	#340	Reduces the local option sales tax rate on industrial and farm machinery to 1/3 of 1 percent if the full local rate is 1 percent or less, or 1/2 of 1 percent if the full local rate exceeds 1 percent. Eventually industrial and farm equipment were fully exempted from the local option sales tax (when they became fully exempt from the state sales tax).
1976	4.5%	#466	Raises the state sales tax to 4.5 percent and exempted prescription drugs from the sales tax base. Effectively raises the maximum local option sales tax to 2.25 percent.
1977	4.5%	#43	Limits the local option sales tax rate on water sold to manufacturers to a maximum or 1/3 of 1 percent or 1/2 of 1 percent (depended on existing local sales tax rate).
1983	4.5%	#278	Provided an alternative to the existing single article tax cap amounts in the law (\$5 or \$7.50).  Beginning July 1, 1983, a local government could choose, as an alternative to the fixed nominal tax cap amounts, to apply its local sales tax rate to the first \$667 price of a single article, on July 1, 1984, the first \$889, and on July 1, 1985, the first \$1,100.  Once a local government chose to remove the dollar cap and apply their tax to the allowable single article base, no further local action would be required in the future if the local single article base were again increased by the Legislature. This change effectively raised the single article cap, the amount varying by local tax rate.

# Appendix A

## Significant Changes to State and Local Option Sales Tax Law (continued)

Year of Change	Existing State Sales Tax Rate	Public Chapter	Description of Change
1984	5.5%	#8, First Extraordinary Session	Raises state sales tax to 5.5 percent (effective April 1, 1984). Repealed existing language that allowed local governments to impose a local tax of up to 1/2 of the state rate. Replaced with language that limits the local option tax to no more than 2.25 percent.
1984	5.5%	#631	Amends language above to reauthorize local governments to impose a local rate of up to 1/2 state rate (in this case, 2.75 percent).
1984	5.5%	#721	Adds additional language clarifying meaning of a single article while broadening meaning to include certain accessories and parts incidental to the sale of a motor vehicle.
1984	5.5%	#729	Authorizes cities in counties that have not yet broadened their local option base (as allowed under the law) to broaden the base for purposes of sales within a city.
1987	5.5%	#428	Provides for special reduced state (3.75 percent) and local (1.5 percent) sales tax rates on purchases by common carrier of tangible personal property for use outside the state.
1988	5.5%	#684	Requires that persons selling water and telephone services collect and report local sales tax on the basis of where the service is provided rather than based on where the business selling the product is located.
1988	5.5%	#789	Provides that dealers with no location in the state may choose, in lieu of the local tax that otherwise applies, to pay at the rate of 2.25 percent.
1989	5.5%	#312	Extends the state and local sales tax to interstate telecommunications services but sets the local tax rate on such services at 1.5 percent.
1990	5.5%	#661	Raises the local tax base for purposes of the single article cap from \$1,100 to \$1,600.
1992	6.0%	#529	Raises the state sales tax to 6 percent and amends language in the local option tax law to limit the maximum local sales tax rate to 2.75 percent (rather than allowing local governments to impose a rate up to 1/2 of the state rate).
1996	6.0%	#743	Adds language to the single article limitation section that results in the treatment of boats, boat trailers, and boat accessories, in a manner similar to the treatment of motor vehicles.

Sources: Tennessee Department of Revenue and Tennessee Public Acts.

# Appendix B

## County and Municipal Local Option Sales Tax Rates, Tennessee, March 2002

Locality (County, CITY)	Local Rate	Combined Rate <sup>1</sup>
Anderson		8.25%
ANDERSONVILLE	2.25%	8.25%
CLINTON	2.75%	8.75%
LAKE CITY	2.75%	8.75%
NORRIS	2.25%	8.25%
OAK RIDGE	2.25%	8.25%
OLIVER SPRINGS	2.25%	8.25%
Bedford	2.75%	8.75%
BELL BUCKLE	2.75%	8.75%
NORMANDY	2.75%	8.75%
SHELBYVILLE	2.75%	8.75%
UNIONVILLE	2.75%	8.75%
WARTRACE	2.75%	8.75%
Benton	2.75%	8.75%
BIG SANDY	2.75%	8.75%
CAMDEN	2.75%	8.75%
EVA	2.75%	8.75%
HOLLADAY	2.75%	8.75%
Bledsoe	2.25%	8.25%
PIKEVILLE	2.25%	8.25%
Blount	2.25%	8.25%
ALCOA	2.25%	8.25%
FRIENDSVILLE	2.25%	8.25%
LOUISVILLE	2.25%	8.25%
MARYVILLE	2.25%	8.25%
ROCKFORD	2.25%	8.25%
TALLASSEE	2.25%	8.25%
TOWNSEND	2.25%	8.25%
WALLAND	2.25%	8.25%
Bradley	2.25%	8.25%
CHARLESTON	2.25%	8.25%
CLEVELAND	2.25%	8.25%
MCDONALD	2.25%	8.25%
Campbell	2.25%	8.25%
CARYVILLE	2.25%	8.25%
DUFF	2.25%	8.25%
HABERSHAM	2.25%	8.25%

# Appendix B

# County and Municipal Local Option Sales Tax Rates, Tennessee, March 2002 (continued)

Locality (County, CITY)	Local Rate	Combined Rate $^{1}$
JACKSBORO	2.25%	8.25%
JELLICO	2.25%	8.25%
LAFOLLETTE	2.25%	8.25%
LAKE CITY	2.75%	8.75%
MORLEY	2.25%	8.25%
NEWCOMB	2.25%	8.25%
PIONEER	2.25%	8.25%
Cannon	1.75%	7.75%
AUBURNTOWN	1.75%	7.75%
BRADYVILLE	1.75%	7.75%
READYVILLE	1.75%	7.75%
WOODBURY	1.75%	7.75%
Carroll	2.75%	8.75%
ATWOOD	2.75%	8.75%
BRUCETON	2.75%	8.75%
BUENA VISTA	2.75%	8.75%
CEDAR GROVE	2.75%	8.75%
CLARKSBURG	2.75%	8.75%
HOLLOW ROCK	2.75%	8.75%
HUNTINGDON	2.75%	8.75%
LAVINIA	2.75%	8.75%
LEACH	2.75%	8.75%
MCKENZIE	2.75%	8.75%
MCLEMORESVILLE	2.75%	8.75%
TREZEVANT	2.75%	8.75%
WESTPORT	2.75%	8.75%
YUMA	2.75%	8.75%
Carter	2.25%	8.25%
ELIZABETHTON	2.25%	8.25%
HAMPTON	2.25%	8.25%
JOHNSON CITY	2.25%	8.25%
MILLIGAN COLLEGE	2.25%	8.25%
ROAN MOUNTAIN	2.25%	8.25%
WATAUGA	2.25%	8.25%
Cheatham	2.25%	8.25%
ASHLAND CITY	2.75%	8.75%
CHAPMANSBORO	2.25%	8.25%

# Appendix B

# County and Municipal Local Option Sales Tax Rates, Tennessee, March 2002 (continued)

Locality (County, CITY)	Local Rate	Combined Rate <sup>1</sup>
KINGSTON SPRINGS	2.75%	8.75%
PEGRAM	2.25%	8.25%
PLEASANT VIEW	2.25%	8.25%
Chester	2.75%	8.75%
ENVILLE	2.75%	8.75%
HENDERSON	2.75%	8.75%
JACKS CREEK	2.75%	8.75%
MILLEDGEVILLE	2.75%	8.75%
SILERTON	2.75%	8.75%
Claiborne	2.25%	8.25%
ARTHUR	2.25%	8.25%
CLAIRFIELD	2.25%	8.25%
CUMBERLAND GAP	2.25%	8.25%
EAGAN	2.25%	8.25%
HARROGATE	2.50%	8.50%
LONE MOUNTAIN	2.25%	8.25%
NEW TAZEWELL	2.25%	8.25%
PRUDEN	2.25%	8.25%
SHAWANEE	2.25%	8.25%
SPEEDWELL	2.25%	8.25%
TAZEWELL	2.25%	8.25%
Clay	2.75%	8.75%
CELINA	2.75%	8.75%
MOSS	2.75%	8.75%
Cocke	2.75%	8.75%
BYBEE	2.75%	8.75%
COSBY	2.75%	8.75%
DEL RIO	2.75%	8.75%
HARTFORD	2.75%	8.75%
NEWPORT	2.75%	8.75%
PARROTTSVILLE	2.75%	8.75%
Coffee	2.00%	8.00%
BEECH GROVE	2.00%	8.00%
HILLSBORO	2.00%	8.00%
MANCHESTER	2.00%	8.00%
SUMMITVILLE	2.00%	8.00%
TULLAHOMA	2.00%	8.00%

Locality (County, CITY)	Local Rate	Combined Rate <sup>1</sup>
Crockett	2.75%	8.75%
ALAMO	2.75%	8.75%
BELLS	2.75%	8.75%
CROCKETT MILLS	2.75%	8.75%
FRIENDSHIP	2.75%	8.75%
FRUITVALE	2.75%	8.75%
GADSDEN	2.75%	8.75%
MAURY CITY	2.75%	8.75%
Cumberland	2.75%	8.75%
CRAB ORCHARD	2.75%	8.75%
CROSSVILLE	2.75%	8.75%
OZONE	2.75%	8.75%
PLEASANT HILL	2.75%	8.75%
WESTEL	2.75%	8.75%
Davidson	2.25%	8.25%
ANTIOCH	2.25%	8.25%
BELLE MEADE	2.25%	8.25%
BERRY HILL	2.25%	8.25%
BRENTWOOD	2.25%	8.25%
FOREST HILLS	2.25%	8.25%
GOODLETTSVILLE	2.25%	8.25%
HERMITAGE	2.25%	8.25%
JOELTON	2.25%	8.25%
LAKEWOOD	2.25%	8.25%
MADISON	2.25%	8.25%
NASHVILLE	2.25%	8.25%
OAK HILL	2.25%	8.25%
OLD HICKORY	2.25%	8.25%
RIDGETOP	2.25%	8.25%
WHITES CREEK	2.25%	8.25%
Decatur	2.50%	8.50%
BATH SPRINGS	2.50%	8.50%
DECATURVILLE	2.50%	8.50%
PARSONS	2.50%	8.50%
SCOTTS HILL	2.50%	8.50%
SUGAR TREE	2.50%	8.50%
DeKalb	1.50%	7.50%

Locality (County, CITY)	Local Rate	Combined Rate $^{1}$
ALEXANDRIA	1.50%	7.50%
DOWELLTOWN	1.50%	7.50%
LIBERTY	1.50%	7.50%
SMITHVILLE	1.50%	7.50%
Dickson	2.75%	8.75%
BURNS	2.75%	8.75%
CHARLOTTE	2.75%	8.75%
CUMBERLAND FURNACE	2.75%	8.75%
DICKSON	2.75%	8.75%
SLAYDEN	2.75%	8.75%
VANLEER	2.75%	8.75%
WHITE BLUFF	2.75%	8.75%
Dyer	2.75%	8.75%
BOGOTA	2.75%	8.75%
DYERSBURG	2.75%	8.75%
FINLEY	2.75%	8.75%
FOWLKES	2.75%	8.75%
LENOX	2.75%	8.75%
MISTON	2.75%	8.75%
NEWBERN	2.75%	8.75%
TIGRETT	2.75%	8.75%
TRIMBLE	2.75%	8.75%
Fayette	2.25%	8.25%
BRADEN	2.25%	8.25%
GALLAWAY	2.25%	8.25%
GRAND JUNCTION	2.25%	8.25%
HICKORY WITHE	2.25%	8.25%
LACONIA	2.25%	8.25%
LAGRANGE	2.25%	8.25%
MACON	2.25%	8.25%
MOSCOW	2.25%	8.25%
OAKLAND	2.25%	8.25%
PIPERTON	2.25%	8.25%
ROSSVILLE	2.25%	8.25%
SOMERVILLE	2.25%	8.25%
WILLISTON	2.25%	8.25%
Fentress	2.50%	8.50%

Locality (County, CITY)	Local Rate	Combined Rate $^{1}$
ALLARDT	2.50%	8.50%
CLARKRANGE	2.50%	8.50%
GRIMSLEY	2.50%	8.50%
JAMESTOWN	2.50%	8.50%
PALL MALL	2.50%	8.50%
WILDER	2.50%	8.50%
Franklin	2.25%	8.25%
BELVIDERE	2.25%	8.25%
COWAN	2.25%	8.25%
DECHERD	2.25%	8.25%
ESTILL SPRINGS	2.25%	8.25%
HUNTLAND	2.25%	8.25%
SEWANEE	2.25%	8.25%
SHERWOOD	2.25%	8.25%
ST. ANDREWS	2.25%	8.25%
TULLAHOMA	2.25%	8.25%
WINCHESTER	2.25%	8.25%
Gibson	2.25%	8.25%
BRADFORD	2.25%	8.25%
DYER	2.25%	8.25%
EATON	2.25%	8.25%
GIBSON	2.25%	8.25%
HUMBOLDT	2.75%	8.75%
IDLEWILD	2.25%	8.25%
KENTON	2.75%	8.75%
MEDINA	2.75%	8.75%
MILAN	2.75%	8.75%
RUTHERFORD	2.25%	8.25%
TRENTON	2.75%	8.75%
YORKVILLE	2.25%	8.25%
Giles	2.50%	8.50%
ARDMORE	2.50%	8.50%
ELKTON	2.50%	8.50%
FRANKEWING	2.50%	8.50%
GOODSPRING	2.50%	8.50%
LYNNVILLE	2.50%	8.50%
MINOR HILL	2.50%	8.50%

Locality (County, CITY)	Local Rate	Combined Rate $^{1}$
PROSPECT	2.50%	8.50%
PULASKI	2.50%	8.50%
Grainger	2.75%	8.75%
BEAN STATION	2.75%	8.75%
BLAINE	2.75%	8.75%
POWDER SPRINGS	2.75%	8.75%
RUTLEDGE	2.75%	8.75%
THORN HILL	2.75%	8.75%
WASHBURN	2.75%	8.75%
Greene	2.75%	8.75%
AFTON	2.75%	8.75%
BAILEYTON	2.75%	8.75%
CHUCKEY	2.75%	8.75%
GREENEVILLE	2.75%	8.75%
MIDWAY	2.75%	8.75%
MOHAWK	2.75%	8.75%
MOSHEIM	2.75%	8.75%
TUSCULUM	2.75%	8.75%
Grundy	2.25%	8.25%
ALTAMONT	2.25%	8.25%
BEERSHEBA SPRINGS	2.25%	8.25%
COALMONT	2.25%	8.25%
GRUETLI	2.25%	8.25%
GRUETLI-LAAGER	2.25%	8.25%
LAAGER	2.25%	8.25%
MONTEAGLE	2.25%	8.25%
PALMER	2.25%	8.25%
PELHAM	2.25%	8.25%
TRACY CITY	2.25%	8.25%
Hamblen	2.50%	8.50%
LOWLAND	2.50%	8.50%
MORRISTOWN	2.50%	8.50%
RUSSELLVILLE	2.50%	8.50%
WHITE PINE	2.50%	8.50%
WHITESBURG	2.50%	8.50%
Hamilton	1.75%	7.75%
APISON	1.75%	7.75%

Locality (County, CITY)	Local Rate	Combined Rate <sup>1</sup>
BIRCHWOOD	1.75%	7.75%
CHATTANOOGA	2.25%	8.25%
COLLEGEDALE	2.25%	8.25%
EAST RIDGE	2.25%	8.25%
GEORGETOWN	1.75%	7.75%
HARRISON	1.75%	7.75%
HIXSON	1.75%	7.75%
LAKESITE	1.75%	7.75%
LOOKOUT MT.	1.75%	7.75%
LUPTON CITY	1.75%	7.75%
WALDEN	2.25%	8.25%
OOLTEWAH	1.75%	7.75%
RED BANK	2.25%	8.25%
RIDGESIDE	1.75%	7.75%
SALE CREEK	1.75%	7.75%
SIGNAL MOUNTAIN	2.25%	8.25%
SODDY DAISY	1.75%	7.75%
Hancock	2.00%	8.00%
KYLES FORD	2.00%	8.00%
SNEEDVILLE	2.00%	8.00%
TREADWAY	2.00%	8.00%
Hardeman	2.00%	8.00%
BOLIVAR	2.00%	8.00%
GRAND JUNCTION	2.00%	8.00%
HICKORY VALLEY	2.00%	8.00%
HORNSBY	2.00%	8.00%
MIDDLETON	2.00%	8.00%
POCAHONTAS	2.00%	8.00%
SAULSBURY	2.00%	8.00%
SILERTON	2.00%	8.00%
TOONE	2.00%	8.00%
WHITEVILLE	2.00%	8.00%
Hardin	2.50%	8.50%
ADAMSVILLE	2.50%	8.50%
COUNCE	2.50%	8.50%
CRUMP	2.50%	8.50%
MILLEDGEVILLE	2.50%	8.50%

Locality (County, CITY)	Local Rate	Combined Rate <sup>1</sup>
MORRIS CHAPEL	2.50%	8.50%
OLIVEHILL	2.50%	8.50%
PICKWICK DAM	2.50%	8.50%
PITTSBURG LANDING	2.50%	8.50%
SALTILLO	2.50%	8.50%
SAVANNAH	2.50%	8.50%
Hawkins	2.75%	8.75%
BULLS GAP	2.75%	8.75%
CHURCH HILL	2.75%	8.75%
EIDSON	2.75%	8.75%
KINGSPORT	2.75%	8.75%
MOORESBURG	2.75%	8.75%
MOUNT CARMEL	2.75%	8.75%
PERSIA	2.75%	8.75%
ROGERSVILLE	2.75%	8.75%
SHILOH	2.75%	8.75%
SURGOINSVILLE	2.75%	8.75%
Haywood	2.75%	8.75%
BROWNSVILLE	2.75%	8.75%
STANTON	2.75%	8.75%
Henderson	2.75%	8.75%
DARDEN	2.75%	8.75%
HURON	2.75%	8.75%
LEXINGTON	2.75%	8.75%
LURAY	2.75%	8.75%
PARKERS CROSSROADS	2.75%	8.75%
REAGAN	2.75%	8.75%
SARDIS	2.75%	8.75%
SCOTTS HILL	2.75%	8.75%
WILDERSVILLE		
Henry	2.25%	8.25%
BUCHANAN	2.25%	8.25%
COMO	2.25%	8.25%
COTTAGE GROVE	2.25%	8.25%
HENRY	2.25%	8.25%
MCKENZIE	2.25%	8.25%
MANSFIELD	2.25%	8.25%

Locality (County, CITY)	Local Rate	Combined Rate $^{1}$
PARIS	2.25%	8.25%
PURYEAR	2.25%	8.25%
SPRINGVILLE	2.25%	8.25%
Hickman	2.25%	8.25%
BON AQUA	2.25%	8.25%
CENTERVILLE	2.25%	8.25%
DUCK RIVER	2.25%	8.25%
LYLES	2.25%	8.25%
NUNNELLY	2.25%	8.25%
ONLY	2.25%	8.25%
PLEASANTVILLE	2.25%	8.25%
PRIMM SPRINGS	2.25%	8.25%
Houston	2.75%	8.75%
ERIN	2.75%	8.75%
STEWART	2.75%	8.75%
TENNESSEE RIDGE	2.75%	8.75%
Humphreys	2.25%	8.25%
DENVER	2.25%	8.25%
HURRICANE MILLS	2.25%	8.25%
MCEWEN	2.25%	8.25%
NEW JOHNSONVILLE	2.25%	8.25%
WAVERLY	2.75%	8.75%
Jackson	2.75%	8.75%
GAINESBORO	2.75%	8.75%
GRANVILLE	2.75%	8.75%
WHITLEYVILLE	2.75%	8.75%
Jefferson	2.25%	8.25%
BANEBERRY	2.25%	8.25%
DANDRIDGE	2.25%	8.25%
JEFFERSON CITY	2.25%	8.25%
NEW MARKET	2.25%	8.25%
STRAWBERRY PLAINS	2.25%	8.25%
TALBOTT	2.25%	8.25%
WHITE PINE	2.25%	8.25%
Johnson	1.50%	7.50%
BUTLER	1.50%	7.50%
LAUREL BLOOMERY	1.50%	7.50%

Locality (County, CITY)	Local Rate	Combined Rate <sup>1</sup>
MOUNTAIN CITY	1.50%	7.50%
SHADY VALLEY	1.50%	7.50%
TRADE	1.50%	7.50%
Knox	2.25%	8.25%
CORRYTON	2.25%	8.25%
FARRAGUT	2.25%	8.25%
HEISKELL	2.25%	8.25%
KNOXVILLE	2.25%	8.25%
MASCOT	2.25%	8.25%
POWELL	2.25%	8.25%
Lake	2.75%	8.75%
RIDGELY	2.75%	8.75%
TIPTONVILLE	2.75%	8.75%
WYNNBURG	2.75%	8.75%
Lauderdale	2.75%	8.75%
FORT PILLOW	2.75%	8.75%
GATES	2.75%	8.75%
HALLS	2.75%	8.75%
HENNING	2.75%	8.75%
RIPLEY	2.75%	8.75%
Lawrence	2.75%	8.75%
ETHRIDGE	2.75%	8.75%
FIVE POINTS	2.75%	8.75%
IRON CITY	2.75%	8.75%
LAWRENCEBURG	2.75%	8.75%
LEOMA	2.75%	8.75%
LORETTO	2.75%	8.75%
ST JOSEPH	2.75%	8.75%
SUMMERTOWN	2.75%	8.75%
WESTPOINT	2.75%	8.75%
Lewis	2.50%	8.50%
HOHENWALD	2.50%	8.50%
KIMMINS	2.50%	8.50%
Lincoln	2.50%	8.50%
DELROSE	2.50%	8.50%
ELORA	2.50%	8.50%
FAYETTEVILLE	2.50%	8.50%

Locality (County, CITY)	Local Rate	Combined Rate <sup>1</sup>
FLINTVILLE	2.50%	8.50%
KELSO	2.50%	8.50%
MULBERRY	2.50%	8.50%
PETERSBURG	2.50%	8.50%
TAFT	2.50%	8.50%
Loudon	2.00%	8.00%
GREENBACK	2.00%	8.00%
LENOIR CITY	2.00%	8.00%
LOUDON	2.50%	8.50%
PHILADELPHIA	2.00%	8.00%
McMinn	2.00%	8.00%
ATHENS	2.00%	8.00%
CALHOUN	2.00%	8.00%
ENGLEWOOD	2.00%	8.00%
ETOWAH	2.00%	8.00%
NIOTA	2.00%	8.00%
RICEVILLE	2.00%	8.00%
SWEETWATER	2.00%	8.00%
McNairy	2.25%	8.25%
ADAMSVILLE	2.25%	8.25%
BETHEL SPRINGS	2.25%	8.25%
CHEWALLA	2.25%	8.25%
EASTVIEW	2.25%	8.25%
ENVILLE	2.25%	8.25%
FINGER	2.25%	8.25%
GUYS	2.25%	8.25%
MICHIE	2.25%	8.25%
MILLEDGEVILLE	2.25%	8.25%
RAMER	2.25%	8.25%
SELMER	2.25%	8.25%
STANTONVILLE	2.25%	8.25%
Macon	2.25%	8.25%
LAFAYETTE	2.25%	8.25%
RED BOILING SPGS.	2.25%	8.25%
Madison	2.75%	8.75%
ADAIR	2.75%	8.75%
BEECH BLUFF	2.75%	8.75%

Locality (County, CITY)	Local Rate	Combined Rate <sup>1</sup>
DENMARK	2.75%	8.75%
HUMBOLDT	2.75%	8.75%
JACKSON	2.75%	8.75%
MEDON	2.75%	8.75%
MERCER	2.75%	8.75%
OAKFIELD	2.75%	8.75%
PINSON	2.75%	8.75%
SPRING CREEK	2.75%	8.75%
THREE WAY	2.75%	8.75%
Marion	2.25%	8.25%
CHAPEL HILL	2.25%	8.25%
GUILD	2.25%	8.25%
JASPER	2.25%	8.25%
KIMBALL	2.25%	8.25%
MONTEAGLE	2.25%	8.25%
NEW HOPE	2.25%	8.25%
POWELLS CROSSROADS	2.25%	8.25%
RICHARD CITY	2.25%	8.25%
SEQUATCHIE	2.25%	8.25%
SOUTH PITTSBURG	2.25%	8.25%
WHITESIDE	2.25%	8.25%
WHITWELL	2.25%	8.25%
Marshall	2.25%	8.25%
BELFAST	2.25%	8.25%
CORNERSVILLE	2.25%	8.25%
LEWISBURG	2.25%	8.25%
PETERSBURG	2.25%	8.25%
Maury	2.25%	8.25%
COLUMBIA	2.25%	8.25%
CULLEOKA	2.25%	8.25%
HAMPSHIRE	2.25%	8.25%
MOUNT PLEASANT	2.25%	8.25%
SANTA FE	2.25%	8.25%
SPRING HILL	2.25%	8.25%
WILLIAMSPORT	2.25%	8.25%
Meigs	2.00%	8.00%
DECATUR	2.00%	8.00%

Locality (County, CITY)	Local Rate	Combined Rate $^{1}$
TEN MILE	2.00%	8.00%
Monroe	2.25%	8.25%
COKERCREEK	2.25%	8.25%
MADISONVILLE	2.25%	8.25%
MOUNT VERNON	2.25%	8.25%
SWEETWATER	2.25%	8.25%
TELLICO PLAINS	2.25%	8.25%
VONORE	2.25%	8.25%
Montgomery	2.50%	8.50%
CLARKSVILLE	2.50%	8.50%
CUNNINGHAM	2.50%	8.50%
PALMYRA	2.50%	8.50%
SOUTH SIDE	2.50%	8.50%
ST. BETHLEHEM	2.50%	8.50%
WOODLAWN	2.50%	8.50%
Moore	2.50%	8.50%
LYNCHBURG	2.50%	8.50%
Morgan	2.00%	8.00%
COALFIELD	2.00%	8.00%
DEER LODGE	2.00%	8.00%
LANCING	2.00%	8.00%
WARTBURG	2.75%	8.75%
OAKDALE	2.00%	8.00%
OLIVER SPRINGS	2.00%	8.00%
PETROS	2.00%	8.00%
SUNBRIGHT	2.75%	8.75%
Obion	2.75%	8.75%
ELBRIDGE	2.75%	8.75%
HORNBEAK	2.75%	8.75%
KENTON	2.75%	8.75%
OBION	2.75%	8.75%
RIVES	2.75%	8.75%
SAMBURG	2.75%	8.75%
SOUTH FULTON	2.75%	8.75%
TRIMBLE	2.75%	8.75%
TROY	2.75%	8.75%
UNION CITY	2.75%	8.75%

Locality (County, CITY)	Local Rate	Combined Rate <sup>1</sup>
WOODLAND MILLS	2.75%	8.75%
Overton	2.50%	8.50%
ALLONS	2.50%	8.50%
ALLRED	2.50%	8.50%
ALPINE	2.50%	8.50%
CRAWFORD	2.50%	8.50%
HILHAM	2.50%	8.50%
LIVINGSTON	2.50%	8.50%
MONROE	2.50%	8.50%
RICKMAN	2.50%	8.50%
Perry	2.50%	8.50%
FLAT WOODS	2.50%	8.50%
LINDEN	2.50%	8.50%
LOBELVILLE	2.50%	8.50%
Pickett	2.75%	8.75%
BYRDSTOWN	2.75%	8.75%
Polk	2.25%	8.25%
BENTON	2.25%	8.25%
CONASAUGA	2.25%	8.25%
COPPERHILL	2.25%	8.25%
DELANO	2.25%	8.25%
DUCKTOWN	2.25%	8.25%
FARNER	2.25%	8.25%
ISABELLA	2.25%	8.25%
OCOEE	2.25%	8.25%
OLDFORT	2.25%	8.25%
POSTELLE	2.25%	8.25%
RELIANCE	2.25%	8.25%
TURTLETOWN	2.25%	8.25%
Putnam	2.75%	8.75%
ALGOOD	2.75%	8.75%
BAXTER	2.75%	8.75%
BLOOMINGTON SPRINGS	2.75%	8.75%
BUFFALO VALLEY	2.75%	8.75%
COOKEVILLE	2.75%	8.75%
MONTEREY	2.75%	8.75%
SILVER POINT	2.75%	8.75%

Locality (County, CITY)	Local Rate	Combined Rate <sup>1</sup>
Rhea	2.25%	8.25%
DAYTON	2.25%	8.25%
EVENSVILLE	2.25%	8.25%
GRANDVIEW	2.25%	8.25%
GRAYSVILLE	2.25%	8.25%
SPRING CITY	2.25%	8.25%
WATTS BAR DAM	2.25%	8.25%
Roane	2.50%	8.50%
EMORY GAP	2.50%	8.50%
HARRIMAN	2.50%	8.50%
KINGSTON	2.50%	8.50%
MIDTOWN	2.50%	8.50%
OAK RIDGE	2.75%	8.75%
OLIVER SPRINGS	2.00%	8.00%
ROCKWOOD	2.50%	8.50%
Robertson	2.25%	8.25%
ADAMS	2.25%	8.25%
CEDAR HILL	2.25%	8.25%
COOPERTOWN	2.25%	8.25%
CROSS PLAINS	2.25%	8.25%
GREENBRIER	2.25%	8.25%
MILLERSVILLE	2.25%	8.25%
ORLINDA	2.25%	8.25%
RIDGETOP	2.25%	8.25%
SPRINGFIELD	2.25%	8.25%
WHITE HOUSE	2.75%	8.75%
Rutherford	2.75%	8.75%
CHRISTIANA	2.75%	8.75%
EAGLEVILLE	2.75%	8.75%
FOSTERVILLE	2.75%	8.75%
LASCASSAS	2.75%	8.75%
LAVERGNE	2.75%	8.75%
MILTON	2.75%	8.75%
MURFREESBORO	2.75%	8.75%
ROCKVALE	2.75%	8.75%
SMYRNA	2.75%	8.75%
Scott	2.25%	8.25%

Locality (County, CITY)	Local Rate	Combined Rate <sup>1</sup>
ELGIN	2.25%	8.25%
HUNTSVILLE	2.25%	8.25%
ONEIDA	2.25%	8.25%
ROBBINS	2.25%	8.25%
WINFIELD	2.25%	8.25%
WINONA	2.25%	8.25%
Sequatchie	2.25%	8.25%
DUNLAP	2.25%	8.25%
Sevier	2.50%	8.50%
GATLINBURG	2.50%	8.50%
KODAK	2.50%	8.50%
PIGEON FORGE	2.50%	8.50%
PITTMAN CENTER	2.50%	8.50%
SEVIERVILLE	2.50%	8.50%
SEYMOUR	2.50%	8.50%
Shelby	2.25%	8.25%
ARLINGTON	2.25%	8.25%
BARTLETT	2.25%	8.25%
BRUNSWICK	2.25%	8.25%
COLLIERVILLE	2.25%	8.25%
CORDOVA	2.25%	8.25%
EADS	2.25%	8.25%
ELLENDALE	2.25%	8.25%
GERMANTOWN	2.25%	8.25%
LAKELAND	2.25%	8.25%
MEMPHIS	2.25%	8.25%
MILLINGTON	2.25%	8.25%
Smith	2.75%	8.75%
BRUSH CREEK	2.75%	8.75%
CARTHAGE	2.75%	8.75%
CHESTNUT MOUND	2.75%	8.75%
DIXON SPRINGS	2.75%	8.75%
ELMWOOD	2.75%	8.75%
GORDONSVILLE	2.75%	8.75%
HICKMAN	2.75%	8.75%
LANCASTER	2.75%	8.75%
MONOVILLE	2.75%	8.75%

Locality (County, CITY)	Local Rate	Combined Rate <sup>1</sup>
PLEASANT SHADE	2.75%	8.75%
RIDDLETON	2.75%	8.75%
SOUTH CARTHAGE	2.75%	8.75%
Stewart	2.25%	8.25%
BIG ROCK	2.25%	8.25%
BUMPUS MILLS	2.25%	8.25%
CUMBERLAND CITY	2.25%	8.25%
DOVER	2.75%	8.75%
INDIAN MOUND	2.25%	8.25%
Sullivan	2.25%	8.25%
BLOUNTVILLE	2.25%	8.25%
BLUFF CITY	2.25%	8.25%
BRISTOL	2.25%	8.25%
JOHNSON CITY	2.25%	8.25%
KINGSPORT	2.50%	8.50%
PINEY FLATS	2.25%	8.25%
Sumner	2.25%	8.25%
BETHPAGE	2.25%	8.25%
CASTALIAN SPRINGS	2.25%	8.25%
COTTONTOWN	2.25%	8.25%
GALLATIN	2.25%	8.25%
GOODLETTSVILLE	2.25%	8.25%
HENDERSONVILLE	2.25%	8.25%
MILLERSVILLE	2.25%	8.25%
MITCHELLVILLE	2.25%	8.25%
PORTLAND	2.25%	8.25%
WESTMORELAND	2.25%	8.25%
WHITE HOUSE	2.75%	8.75%
Tipton	2.25%	8.25%
ATOKA	2.25%	8.25%
BRIGHTON	2.25%	8.25%
BURLISON	2.25%	8.25%
COVINGTON	2.75%	8.75%
DRUMMONDS	2.25%	8.25%
GARLAND	2.25%	8.25%
GILT EDGE	2.25%	8.25%
MASON	2.25%	8.25%

Locality (County, CITY)	Local Rate	Combined Rate <sup>1</sup>
MUNFORD	2.25%	8.25%
REVERIE	2.25%	8.25%
TIPTON	2.25%	8.25%
Trousdale	2.25%	8.25%
HARTSVILLE	2.25%	8.25%
Unicoi	2.75%	8.75%
ERWIN	2.75%	8.75%
FLAG POND	2.75%	8.75%
UNICOI	2.75%	8.75%
Union	2.25%	8.25%
LUTTRELL	2.25%	8.25%
MAYNARDVILLE	2.25%	8.25%
PLAINVIEW	2.25%	8.25%
SHARPS CHAPEL	2.25%	8.25%
Van Buren	2.75%	8.75%
SPENCER	2.75%	8.75%
Warren	2.00%	8.00%
CAMPAIGN	2.00%	8.00%
CENTERTOWN	2.00%	8.00%
MCMINNVILLE	2.00%	8.00%
MORRISON	2.00%	8.00%
ROCK ISLAND	2.00%	8.00%
SMARTT	2.00%	8.00%
VIOLA	2.00%	8.00%
Washington	2.50%	8.50%
FALL BRANCH	2.50%	8.50%
JOHNSON CITY	2.50%	8.50%
JONESBOROUGH	2.50%	8.50%
LIMESTONE	2.50%	8.50%
MOUNTAIN HOME	2.50%	8.50%
TELFORD	2.50%	8.50%
Wayne	2.75%	8.75%
CLIFTON	2.75%	8.75%
COLLINWOOD	2.75%	8.75%
CYPRESS INN	2.75%	8.75%
IRON CITY	2.75%	8.75%
LUTTS	2.75%	8.75%

# County and Municipal Local Option Sales Tax Rates, Tennessee, March 2002 (continued)

Locality (County, CITY)	Local Rate	Combined Rate <sup>1</sup>
WAYNESBORO	2.75%	8.75%
Weakley	2.75%	8.75%
DRESDEN	2.75%	8.75%
DUKEDOM	2.75%	8.75%
GLEASON	2.75%	8.75%
GREENFIELD	2.75%	8.75%
MCKENZIE	2.75%	8.75%
MARTIN	2.75%	8.75%
PALMERSVILLE	2.75%	8.75%
SHARON	2.75%	8.75%
White	2.25%	8.25%
DOYLE	2.25%	8.25%
QUEBECK	2.25%	8.25%
SPARTA	2.25%	8.25%
WALLING	2.25%	8.25%
Williamson	2.25%	8.25%
ARRINGTON	2.25%	8.25%
BRENTWOOD	2.25%	8.25%
COLLEGE GROVE	2.25%	8.25%
FAIRVIEW	2.25%	8.25%
FRANKLIN	2.25%	8.25%
NOLENSVILLE	2.25%	8.25%
SPRING HILL	2.25%	8.25%
THOMPSONS STATION	2.25%	8.25%
Wilson	2.25%	8.25%
GLADEVILLE	2.25%	8.25%
LEBANON	2.25%	8.25%
MOUNT JULIET	2.25%	8.25%
NORENE	2.25%	8.25%
WATERTOWN	2.25%	8.25%

Source: Tennessee Department of Revenue

<sup>1</sup> Combined rate is total of state sales tax rate of 6.0% and local option rate.

# **Appendix C**

Estimates of the Income Elasticity of the Local Option Sales Tax by County, 1987 - 1998

County	Elasticity Coefficient	Standard Error (of Elasticity)	t Statistic
Anderson	0.8873	0.0569	15.6
Bedford	0.8586	0.0724	11.9
Benton	0.8439	0.0500	16.9
Bledsoe	1.1060	0.0972	11.4
Blount	0.8742	0.0337	26.0
Bradley	0.7535	0.0931	8.1
Campbell	0.9221	0.0517	17.8
Cannon	0.5805	0.0393	14.8
Carroll	0.5717	0.0296	19.3
Carter	0.8589	0.0372	23.1
Cheatham	0.9267	0.0320	29.0
Chester	1.0605	0.0867	12.2
Claiborne	0.6817	0.0563	12.1
Clay	0.7119	0.0708	10.1
Cocke	0.7443	0.0474	15.7
Coffee	0.9707	0.0258	37.6
Crockett	0.5697	0.0386	14.7
Cumberland	1.0096	0.0208	48.5
Davidson	0.8197	0.0465	17.6
Decatur	0.7604	0.0386	19.7
DeKalb	0.9268	0.1589	5.8
Dickson	1.0367	0.0505	20.5
Dyer	0.7786	0.0597	13.0
Fayette	0.5449	0.0800	6.8
Fentress	0.7776	0.0409	19.0
Franklin	0.8769	0.0794	11.0
Gibson	0.6726	0.0276	24.4
Giles	0.7279	0.0350	20.8
Grainger	0.7155	0.1110	6.4
Greene	0.8451	0.0581	14.5
Grundy	0.8441	0.1577	5.4
Hamblen	0.8056	0.0719	11.2
Hamilton	0.8172	0.0503	16.2
Hancock	0.8662	0.1040	8.3
Hardeman	0.6873	0.0604	11.4
Hardin	0.7041	0.0260	27.1
Hawkins	0.7218	0.0898	8.0
Haywood	0.6186	0.0457	13.5
Henderson	0.9116	0.0657	13.9
Henry	0.8998	0.0547	16.4

## **Appendix C**

Estimates of the Income Elasticity of the Local Option Sales Tax by County, 1987 - 1998 (continued)

County	Elasticity Coefficient	Standard Error (of Elasticity)	t Statistic
Hickman	0.7570	0.0607	12.5
Houston	0.6245	0.0744	8.4
Humphreys	0.6418	0.0568	11.3
Jackson	0.5533	0.0547	10.1
Jefferson	0.9888	0.0772	12.8
Johnson	0.8066	0.0379	21.3
Knox	0.7436	0.1006	7.4
Lake	0.3263	0.1553	2.1
Lauderdale	0.8774	0.0756	11.6
Lawrence	0.9136	0.0622	14.7
Lewis	0.7575	0.0504	15.0
Lincoln	0.7146	0.0721	9.9
Loudon	1.0077	0.0237	42.6
McMinn	0.9226	0.0491	18.8
McNairy	0.5098	0.0745	6.8
Macon	0.8906	0.0651	13.7
Madison	0.9206	0.0593	15.5
Marion	0.7501	0.0558	13.4
Marshall	0.4983	0.1118	4.5
Maury	0.5237	0.0846	6.2
Meigs	0.9290	0.1656	5.6
Monroe	0.7858	0.0619	12.7
Montgomery	1.0366	0.0321	32.3
Moore	0.6118	0.0465	13.2
Morgan	0.3911	0.1327	2.9
Obion	1.0290	0.0674	15.3
Overton	0.6690	0.0339	19.7
Perry	0.5765	0.0488	11.8
Pickett	0.8053	0.1213	6.6
Polk	0.6126	0.1633	3.8
Putnam	0.9967	0.0619	16.1
Rhea	0.9939	0.0419	23.7
Roane	1.2623	0.0884	14.3
Robertson	0.8809	0.0333	26.5
Rutherford	0.9477	0.0420	22.6
Scott	1.0110	0.0559	18.1
Sequatchie	0.7704	0.0393	19.6
Sevier	1.2225	0.0249	49.1
Shelby	0.7563	0.0553	13.7
Smith	0.6850	0.0746	9.2

# **Appendix C**

Estimates of the Income Elasticity of the Local Option Sales Tax by County, 1987 - 1998 (continued)

County	Elasticity Coefficient	Standard Error (of Elasticity)	t Statistic
Stewart	0.8264	0.0789	10.5
Sullivan	0.8889	0.0261	34.1
Sumner	0.7633	0.1029	7.4
Tipton	0.8836	0.0468	18.9
Trousdale	0.4064	0.0448	9.1
Unicoi	0.4964	0.0433	11.5
Union	0.8669	0.0645	13.4
Van Buren	0.9373	0.1776	5.3
Warren	0.8440	0.0297	28.4
Washington	1.0410	0.0693	15.0
Wayne	0.7881	0.0470	16.8
Weakley	0.8059	0.0514	15.7
White	0.8608	0.0598	14.4
Williamson	1.3237	0.0750	17.7
Wilson	0.8106	0.0991	8.2
Statewide Total	0.8426	0.0487	17.4

Sources: Tennessee Department of Revenue (sales tax data) and US Bureau of Economic Analysis (county personal income).

## Appendix D

# Growth and Volatility of the Local Option Sales Tax Base and Personal Income by County

	Local Sales Tax	Local Sales Tax Base, 1987 - 99		Personal Income, 1987 - 98	
	Avg. Annual	Percent		Percent	
0 .	Percent	Deviation	Percent	Deviation	
County	Growth	(Volatility)	Growth	(Volatility)	
Anderson	4.3%	5.9%	5.4%	3.0%	
Bedford	4.8%	4.0%	5.7%	1.5%	
Benton	4.5%	4.2%	5.7%	2.6%	
Bledsoe	7.2%	8.8%	6.4%	2.2%	
Blount	5.6%	1.0%	6.4%	1.7%	
Bradley	5.0%	5.7%	6.5%	1.5%	
Campbell	5.4%	3.7%	6.0%	0.5%	
Cannon	4.0%	3.7%	6.6%	2.0%	
Carroll	3.2%	4.1%	6.3%	2.4%	
Carter	4.5%	3.0%	5.4%	2.6%	
Cheatham	7.1%	2.9%	7.7%	1.6%	
Chester	7.1%	7.0%	6.8%	2.8%	
Claiborne	4.6%	4.8%	6.8%	2.0%	
Clay	4.2%	3.7%	5.6%	6.0%	
Cocke	5.1%	1.7%	6.7%	3.3%	
Coffee	4.9%	2.1%	5.3%	1.2%	
Crockett	3.1%	3.8%	6.1%	2.8%	
Cumberland	8.0%	2.0%	8.0%	1.2%	
Davidson	5.2%	3.7%	6.5%	1.3%	
Decatur	4.9%	2.6%	6.5%	1.4%	
DeKalb	5.2%	9.7%	5.8%	2.0%	
Dickson	7.4%	4.3%	7.2%	0.7%	
Dyer	4.5%	3.2%	5.7%	3.3%	
Fayette	4.9%	9.1%	7.8%	1.9%	
Fentress	5.7%	3.7%	7.5%	3.4%	
Franklin	5.7%	4.1%	6.4%	1.8%	
Gibson	3.5%	2.3%	5.4%	1.8%	
Giles	4.6%	3.9%	6.5%	2.4%	
Grainger	5.7%	8.1%	7.1%	2.8%	
Greene	4.9%	2.5%	5.8%	1.7%	
Grundy	5.0%	10.7%	6.1%	0.8%	
Hamblen .	5.3%	4.2%	6.6%	2.5%	
Hamilton	4.4%	2.6%	5.5%	1.8%	
Hancock	5.2%	5.2%	5.6%	2.8%	
Hardeman	3.5%	3.2%	5.2%	2.9%	
Hardin	4.9%	2.5%	7.1%	1.2%	
Hawkins	4.5%	4.2%	5.9%	3.0%	

## **Appendix D**

# Growth and Volatility of the Local Option Sales Tax Base and Personal Income by County

	Local Sales Tax 1	Base, 1987 - 99	Personal Inco	ome, 1987 - 98
County	Avg. Annual Percent Growth	Percent Deviation (Volatility)	Percent Growth	Percent Deviation (Volatility)
Haywood	3.1%	2.6%	5.2%	1.6%
Henderson	6.0%	5.1%	6.7%	0.9%
Henry	5.6%	3.6%	6.2%	1.6%
Hickman	4.9%	5.2%	6.7%	1.5%
Houston	3.7%	4.9%	6.0%	2.6%
Humphreys	3.7%	3.2%	5.7%	2.5%
Jackson	3.9%	4.3%	7.1%	1.1%
Jefferson	7.2%	4.9%	7.0%	1.7%
<u> </u>	5.4%	5.5%	6.9%	4.3%
Johnson Knox	4.6%	5.7%	6.0%	1.6%
Lake	2.0%	8.2%	5.0%	5.2%
Lake Lauderdale				
	4.4% 5.9%	4.3% 3.5%	5.1% 6.5%	1.4%
Lawrence	6.1%	1.9%	7.9%	4.3% 6.1%
Lewis				_
Lincoln	4.1%	3.1%	5.3%	2.9%
Loudon	7.7%	1.7%	7.5%	1.0%
McMinn	4.7%	2.0%	5.1%	1.7%
McNairy	3.3%	5.3%	5.6%	0.6%
Macon	5.5%	3.2%	6.1%	2.8%
Madison	6.6%	3.5%	7.0%	1.4%
Marion	4.5%	3.4%	5.9%	1.0%
Marshall	4.0%	9.0%	7.4%	4.9%
Maury	4.9%	6.3%	8.8%	10.0%
Meigs	5.2%	11.4%	6.0%	1.0%
Monroe	5.7%	3.8%	7.0%	2.1%
Montgomery	7.8%	3.1%	7.7%	2.1%
Moore	3.6%	3.1%	5.9%	1.5%
Morgan	2.5%	10.1%	6.6%	4.6%
Obion	5.1%	3.1%	5.0%	1.8%
Overton	4.6%	1.6%	6.7%	1.8%
Perry	4.9%	5.4%	7.7%	1.5%
Pickett	6.4%	6.7%	6.7%	4.9%
Polk	3.8%	11.8%	5.9%	2.0%
Putnam	6.6%	3.6%	6.6%	1.9%
Rhea	4.7%	2.3%	4.7%	1.6%
Roane	6.7%	6.0%	5.4%	3.9%
Robertson	6.8%	3.1%	7.7%	1.3%
Rutherford	8.4%	4.6%	8.8%	1.0%

#### **Appendix D**

#### Growth and Volatility of the Local Option Sales Tax Base and Personal Income by County

	Local Sales Tax Base, 1987 - 99		Personal Income, 1987 - 98	
	Avg. Annual	Percent		Percent
	Percent	Deviation	Percent	Deviation
County	Growth	(Volatility)	Growth	(Volatility)
Scott	5.5%	2.8%	5.5%	2.4%
Sequatchie	5.2%	2.7%	6.7%	1.5%
Sevier	9.3%	3.6%	7.8%	1.5%
Shelby	4.7%	3.1%	6.1%	1.4%
Smith	4.4%	4.6%	6.2%	1.2%
Stewart	5.4%	5.3%	6.5%	2.8%
Sullivan	4.5%	2.6%	5.2%	2.2%
Sumner	5.5%	7.7%	6.8%	1.0%
Tipton	6.4%	2.7%	7.2%	1.9%
Trousdale	2.9%	3.3%	6.2%	2.8%
Unicoi	2.9%	2.6%	5.4%	3.2%
Union	6.6%	4.5%	7.2%	1.7%
Van Buren	5.2%	11.0%	5.6%	1.2%
Warren	5.4%	1.8%	6.6%	1.3%
Washington	6.4%	3.2%	6.1%	1.8%
Wayne	4.7%	4.4%	6.3%	4.5%
Weakley	4.2%	3.4%	5.5%	1.7%
White	4.9%	3.4%	5.6%	1.0%
Williamson	12.3%	8.4%	9.4%	1.3%
Wilson	6.5%	9.1%	7.2%	0.6%
Statewide Total	5.4%	2.9%	6.4%	1.2%

Source: Local option sales tax base for fiscal years 1987-1999;

County personal income for fiscal years 1987-98.

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#### **Endnotes**

- <sup>1</sup> Alabama, Colorado, Georgia, Louisiana, New Mexico, and Oklahoma (Source: US Census Bureau).
- <sup>2</sup> Public Chapter No. 329 of 1963.
- <sup>3</sup> See *Interim Report* of the Special Joint Legislative Task Force On State and Local Tax Structure, 1984. p. 5.
- <sup>4</sup> Situs means the location of the economic activity that generated the revenue.
- <sup>5</sup> Anderson County was the last county to impose the tax (in November 1983 at a rate of only 3/4 of 1 percent).
- <sup>6</sup> The ratio of local option sales tax collections as reported by the Tennessee Department of Revenue to the ratio of local property taxes as estimated from data in the 2000 *Tax Aggregate Report of Tennessee* published by the State Board of Equalization.
- <sup>7</sup> While unique, it is not unheard of. Arkansas and Florida both have some limitations built into their local sales tax laws; in Arkansas, the local rate applies up to the first \$2,500 of a single article. Two states have caps on their state sales tax (North Carolina and South Carolina).
- <sup>8</sup> The newspapers of the day noted that the amendment was sponsored by Representative Fred Berry of Knoxville.
- <sup>9</sup> The distribution of the tax bases will mirror the distributions of actual taxes collected from each base.
- <sup>10</sup> Large industries frequently purchase many items subject to the single article limitation. Much of this activity is self-reported on use tax returns filed by the businesses themselves (in contrast to the vendors who sell to such businesses, many of which are located outside the jurisdiction of the state).
- <sup>11</sup> TACIR, July 1999.
- $^{12}$  Residential energy sales are exempt from the state sales tax. However commercial energy sales are fully taxable (at 6 percent rate) while industrial usage is either fully exempt or taxed at a reduced rate of 1.5 percent.
- <sup>13</sup> With a very few exceptions, the single article cap in most jurisdictions is \$1,600.
- <sup>14</sup> Based on data supplied by the Research Section of the Tennessee Department of Revenue for fiscal year 1998-99.
- <sup>15</sup> The Tennessee Department of Revenue has no data series that provides a breakdown of currently taxable energy sales (energy taxable at 6 percent state rate versus energy taxable at 1.5 percent manufacturing rate).
- <sup>16</sup> The Edison Electric Institute recommended combining the data because of problems of inconsistent reporting by state utilities on sales to commercial users versus industrial users. Data used in the analysis was obtained from the Edison Electric Institute and The American Gas Association.
- <sup>17</sup> With a standard error of .037.
- <sup>18</sup> This has been slightly blunted over the last ten years with the growth in the popularity of leasing.
- <sup>19</sup> Using fiscal year data for 1982-83 through 1997-98, and adjusting for state tax rate changes.
- <sup>20</sup> For a description of the procedure used, see TACIR, July 1999, p. 4.
- <sup>21</sup> See TACIR, January 2000, p. 9. The original version of this paper was written by Stanley Chervin and presented at a meeting of the Tennessee Advisory Commission on Intergovernmental Relations (TACIR) during the summer of 1998. The author who is currently a consultant for the TACIR has updated the paper.
- <sup>22</sup> Some of course would say that an inelastic tax is not necessarily bad; it forces officials to publicly increase tax rates, generally only with the approval of the electorate.
- <sup>23</sup> See Dye, 1991.
- <sup>24</sup> TACIR, March 2000, p. 42. Table 12.

- <sup>25</sup> A competing basis for taxation is the "benefits received principle." It argues that taxpayers should pay taxes based on the benefits they receive from government spending.
- <sup>26</sup> Using annual income as a baseline for evaluating both horizontal and vertical equity remains a controversial academic issue. There is a considerable body of research that argues against using current income in equity studies in favor of either a measure of total consumption or lifetime (permanent) income. See Zodrow, pp. 54-64, and Chernik (2000).
- <sup>27</sup> For additional discussion on the border problem, see TACIR, January 1999, pp. 13-18.
- <sup>28</sup> For additional discussion, see TACIR, January 1999, pp. 11-13.
- <sup>29</sup> Donald Bruce and Bill Fox, *Tennessee Summary*, *State and Local Sales Tax Revenue Losses from E-Commerce: Updated Estimates*, October 2001, Center for business and Economic Research, University of Tennessee.
- <sup>30</sup> See Nicholas Johnson, pp.1801-1806 and TACIR, April 1999.
- $^{31}$  Of the 46 states (including D.C.) that impose a sales or gross receipts tax, 27 fully exempt food as of 1/1/2002.
- <sup>32</sup> In addition to the patterns mentioned, new data also shows that the incidence of Internet access and purchases over the Internet (frequently not subject to sales tax) rises as income rises. See Powell, p. 449.
- <sup>33</sup> Actually called a consumer unit, a concept that differs slightly from a household.
- 34 http://stats.bls.gov/csxhome.htm
- $^{35}$  Data for the lowest income group in the Census survey notoriously underestimates both income and spending. See Johnson and Lav, 1998.
- <sup>36</sup> See Kennickell et al, pp. 3-5 and Kennickell and Starr-McCluer (April 1996), Table 4 (p. 25).
- <sup>37</sup> The data for other types of households shows similar patterns.
- $^{\rm 38}$  Based on national expenditure patterns and the Tennessee state sales tax base.
- <sup>39</sup> Tennessee Small School Systems et al. v. McWherter et al. 851 S.W.2D 139 (Tennessee, March 22, 1993).
- <sup>40</sup> Chervin (July 2000).
- $^{41}$  Only 20% of the estimated sales tax losses were ultimately recouped through the equalization formula. See Chervin (July 2000), p. 330.
- <sup>42</sup> Actual tax losses occur as a result of remote sales by out-of-state vendors without a physical presence in a state. This can include subsidiaries of instate businesses.
- $^{43}$  Residents buying otherwise taxable goods and services over the Internet or by phone or by mail from distant sellers (sellers with no physical presence in a state) still have a use tax liability. However there is no practical method for collecting use taxes from such buyers.
- <sup>44</sup> General Accounting Office (2000), Table IV.1 and Table IV.2
- <sup>45</sup> Mikesell, June 2000, p. 1955.
- <sup>46</sup> A recent article pegged the average business share of existing state sales taxes at 40% (see Strauss, pp. 1978-1980). If the business share of Internet purchases were also 40%, the potential loss from a business exemption is high. An Internet exemption would also endanger traditional business input purchases that are currently taxed.



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